

November-December 2004

1979 - 2004 Happy 25th Anniversary

Vol. 19, No. 6

Missouri Native Plant Society

November

- | | | |
|----|--------------------------------------|--|
| 8 | Mon., 7:00PM
Columbia | Brad Jacobs , ornithologist with the Missouri Department of Conservation, will speak on birds and their habitats at Hawthorn Chapter Regular Meeting, Unitarian Church at 2615 Shepard Blvd. For more information contact Paula, 573-474-4225. |
| 13 | Sat., 10:00AM
Kansas City | Field Trip to Linda Hall Library , 5100 Cherry, Kansas City, MO. Take Rockhill Road to 51 st St., go west on Cherry, south half a block, turn in at the big iron gates, and park in the Library parking lot. Contact Sue Hollis, 816-561-0206, <ferngro@worldnet.att.net>. |
| 15 | Mon., 7:00PM
Osage Plains | Jim Harlan , retired Missouri Department of Conservation employee, will discuss his work with the department at the Osage Plains Chapter Meeting in the Henry County Courthouse Basement Meeting Room. Refreshments will be provided—bring a friend! |
| 18 | Thurs., 7:00PM
Kansas City | Chapter Meeting at the Discovery Center. Speaker/Program will be announced. Contact Daniel Rice, 816-461-0206, <drice95875@aol.com>. |
| 20 | Sat.
Columbia | Hawthorn Chapter Wreath Workshop . Start saving dried materials. Details will be announced. |

December

- | | | |
|---|---|--|
| 1 | Due date for material for the January–February Petal Pusher. Please send meeting, field trip information and articles (typed double-spaced), photographs and graphics to the editor by this date. Send E-mail to: Betty Walters, MONPS Newsletter Editor, at <bettyluvsinsects@yahoo.com>. | |
| 4 | Sat.
9:00AM-4:00PM
Columbia | Winter State Board Meeting, Dunn-Palmer Herbarium. See Page 2 for details and directions. |
| 5 | Sun.
Columbia | Hawthorn Chapter Holiday Party. Details will be announced. |

Reminder: The Osage Plains Chapter has no class room meeting scheduled during December 2004.

Reminder: The St. Louis Chapter does not schedule Chapter Meetings during November and December.



Give A Gift of Nature:
A MONPS Membership!



Winter State Board Meeting

COLUMBIA, MISSOURI
DECEMBER 4, 2004



All Missouri Native Plant Society members and friends are invited to attend the winter MONPS State Board Meeting. If you want to have a voice in your Society, now is your chance. This is a business meeting, so plan to stay all day. The meeting begins at 9:00^{AM} and will end no later than 4:00^{PM}. We will be meeting at the Dunn-Palmer Herbarium (see directions below).

We will be ordering lunch in, or you may bring a lunch if desired.

We will be planning the field trips associated with the quarterly board meetings. If you have a favorite site you would like to visit with the Society, join us in Columbia, or contact an officer or board member before the meeting with your ideas.

DIRECTIONS TO DUNN-PALMER HERBARIUM

From the east: drive west on I-70 to U.S. Hwy 63 South (Exit 128); head south towards Jefferson City to the Stadium Blvd. exit; turn right (west) and go to the 4th traffic light (street at this intersection is called College Ave. to the north and Rock Quarry Road to the south); turn left (south) and go ~1/8 mi. on Rock Quarry Road; turn right into the driveway of the Museum Support Center (parking in front or along side driveway).

From the west: drive east on I-70 to Stadium Blvd. exit (Exit 124); turn right (south); stay on Stadium Blvd. as it goes south and then turns east, past the MU football stadium and the Hearnes basketball arena; turn right (south) on Rock Quarry Road (stoplight here); drive south ~1/8 mile, turn right into the driveway of the Museum Support Center (parking in front or along side driveway).

Have We Heard From You?

By Ann Earley, Membership Chair

Have we heard from you regarding your membership dues renewal? Please check the top line of your mailing label. If it shows the date 20040630, we have not received your dues for our new membership year, which begins in July and ends in June. **Unless we receive your dues renewal very soon, this issue of the Petal Pusher will be your last.**

To renew, please use the form on the inside back page of this newsletter. If you have questions about your membership status, please contact Ann Earley (see back page for contact information).

We value our members and urge you to renew today. Please don't expire! Let us hear from you!

Welcome to New Members

We are happy to welcome these new and returning members to the Missouri Native Plant Society. We hope you will join us soon at some of our upcoming meetings and field botany trips.

Marty Vogt, St. Louis

Earl Lubensky, Columbia

Elizabeth Harlan, St. Louis

Douglas Ladd, St. Louis

Susan Orr, Ballwin

Leslie Limberg, Wentzville

Barbara Fairchild, Mexico

Cathy Bylinowski, Kansas City

Christina Fischer, Columbia

David Moore, Rolla



Visit Our Websites

Robin Kennedy, University of Missouri Herbarium, Columbia, is our Society's webmaster and does an excellent job of maintaining our site on the world wide web: [http://www.missouri.edu/~umo_herb/monps].

CHAPTER SITES

Kansas City

www.angelfire.com/mo2/kcmonps/

Columbia

www.digmo.com/npsboco

SITES FOR MISSOURI BOTANY

Flora of Missouri Project:

<http://ridgewaydb.mobot.org/mobot/missouri/>

Atlas of Missouri Vascular Plants:

http://biology.smsu.edu/herbarium/atlas/atlas_of_missouri_vascular_plant.htm

OUR READERS' SITES OF INTEREST

KCWildlands: www.kcwildlands.org

GrowNative!: www.grownative.org

Dan Tenaglia's Award Winning Website:

<http://www.missouriplants.com/>

2bnTheWild: <http://2bnthewild.com/S3.htm>

STATE NATIVE PLANT SOCIETIES

Arkansas Native Plant Society:

<http://www.anps.org/>

Illinois Native Plant Society: <http://www.ill-inps.org/>

Iowa Native Plant Society:

<http://www.public.iastate.edu/~herbarium/inps/inpshome.htm>

Kansas Wildflower Society:

<http://www.cs.hesston.edu/kws/index.htm>

Oklahoma Native Plant Society:

<http://www.usao.edu/~onps/index.html>

Webster Groves Nature Study Society Requests Applications for the Menke Scholarship for Wildlife Habitat

Don Menke was an avid outdoorsman, naturalist, and conservationist. He enjoyed many activities such as canoeing, birding, observing wild flowers and bluebird nests, camping, and photography. He and Nell Menke were members of the Webster Groves Nature Study Society for over 30 years. She was a charter member of the Missouri Native Plant Society. In 1977, she and Betty Nellums started the Tuesday wildflower tours at the Shaw Nature Reserve, and in 1985, she received special recognition for her continued leadership on the wildflower tours. Her journals record flower location and blooming at the reserve.

The scholarship is to support (a) field work or (b) attendance of off-campus courses (including short-term internships with the Shaw Nature Reserve, The Nature Conservancy, or similar organizations) or conferences, with emphasis on improving wildlife habitat in Missouri. Students in Missouri colleges or universities are eligible if majoring in areas related to wildlife habitat. Such areas include but are not limited to natural history, environmental education, ecological research or management, natural horticulture, fisheries and wildlife, forestry, conservation, etc.

The amount to be awarded will be up to \$1,000 or more per student, for the year commencing June 1. It will be made to the applicant's institution, which shall monitor the award without receiving any overhead.

Applicants should submit the following materials to the review committee:

1. A description of the nature and location of the proposed field work, course, short-term internship, or conference. Use language understandable to non-technical reviewers. For field work, review the goals and, where relevant, hypotheses to be tested. If some of the field data will be further analyzed in the laboratory, indicate the extent of this analysis. For a course, internship, or conference, indicate how it will supplement your school's courses.

2. A budget for the expected costs. For auto mileage, use your institution's rate. Air travel must be coach, tourist, or similar class. Itemize any tuition or registration, or living expenses such as food and room (not per diem). Exclude personal expenses. Itemize scientific supplies in general categories, but exclude equipment costs. Expenses above the award limit are the responsibility of the awardee.

3. Three letters of recommendation submitted from current or former faculty. One must be from your advisor and specify (a) that you are a bona fide student currently registered for a B.A., B.S., M.S., or Ph.D. degree, (b) that your expenses are not already covered by existing funds, and (c) that the award would truly enhance your work.

4. A curriculum vitae or brief statement of your academic career, including past education and degrees, the institutions and dates; a terse summary of related formal courses, plus grades; conservation activities, etc. Transcripts are not required.

Submit your application by 10 February, 2005 to:

The Menke Scholarship for Wildlife Habitat

Webster Groves Nature Study Society

G. Michael Flieg

6803 Nashville Ave.

St. Louis, MO 63139-3715

Recipients will be notified on or before April 1 (the funds will be available June 1); you should submit a brief written report within a year of receiving the funds; and you shall acknowledge the scholarship in any resulting published material. You will also be invited to the annual dinner meeting of the Webster Groves Nature Study Society.

St. Louis Chapter Continues Plant Inventory; Participates in Public Events

By Nels Holmberg, Chapter Representative

Chapter meeting for **June 23**: Our now annual Twilight Walk, this time along the Al Foster Trail beside the Meramec River to Rock Hollow, where the chapter is conducting a plant inventory for a new county park.

June 27: Field trip to the Coonville Creek Fen Natural Area at St. Francois State Park.

July 18: Another field trip to Rock Hollow where inventory was continued.

Chapter meeting for **July 28**: A workshop-type program on the Milkweed family, in which members brought in lots of plant material, lead by Nels Holmberg, covering their identity, taxonomy and propagation.

Chapter meeting for **August 25**: George Yatskievych told about his trip to China to help with an Ethnobotany program. Held on the eastern edge of the Himalayas, it involved stays in remote villages and long hikes over a high pass.

September 10-11: Participated in the St. Louis BioBlitz in Forest Park; a MONOPS display was set up and hikes were conducted.

September 11: A MONPS display was set up at Prairie Day at Shaw Nature Reserve by Rex and Martha Hill.

MONPS September Loess Hill Plant List

By Tim Smith, MDC Botanist

On the afternoon of 18 September 2004, members of the MONPS attending the quarterly meeting in the St. Joseph-Mound City area visited a loess hill prairie on Squaw Creek National Wildlife Refuge. Although it was late in the year to find many plants in flower, there was a diversity of prairie species identified, including several species of conservation concern that are largely restricted, in Missouri, to loess hill prairies.

The list below of plants identified by the group includes non-native species, shown in all capital letters. The state rank of species of conservation concern is given in the third column and those species names are bolded.

<i>Agalinis aspera</i>	Rough False Foxglove	
<i>Ambrosia artemisiifolia</i>	Common Ragweed	
<i>Amorpha canescens</i>	Lead Plant	
<i>Andropogon gerardii</i>	Big Bluestem	
<i>Aristida oligantha</i>	Plains Three-Awn Grass	
<i>Asclepias verticillata</i>	Whorled Milkweed	
<i>Asterericoides</i>	Heath Aster	
<i>Asteroleontangiensis</i>	Azure Aster	
<i>Astragalus lotiflorus</i>	Low Milk Vetch	S2
<i>Bothriochloa saccharoides</i>	Silver Beard Grass	
<i>Bouteloua curtipendula</i>	Side-Oats Grama	
<i>Bouteloua gracilis</i>	Blue Grama	S1
<i>Bouteloua hirsuta</i>	Hairy Grama	S2
<i>Brickellia eupatorioides</i>	False Boneset	
<i>CELASTRUS ORBICULATUS</i>	Oriental Bittersweet	
<i>CHENOPodium ALBUM</i>	Lamb's Quarters	
<i>Comandra richardsiana</i>	False Toadflax	
<i>Croton monanthogynus</i>	Prairie Tea	
<i>Dalea enneandra</i>	Nine-Anthered Dalea	S2
<i>DIGITARIA ISCHAEMUM</i>	Smooth Crab Grass	
<i>Equisetum x ferrissii</i>	Ferris's Horsetail	
<i>Euphorbia corollata</i>	Flowering Spurge	
<i>Euphorbia heterophylla</i>	Painted Spurge	
<i>Euphorbia marginata</i>	Snow-On-The-Mountain	
<i>Helianthus hirsutus</i>	Oblong Sunflower	
<i>Helianthus maximiliani</i>	Maximillian Sunflower	
<i>Heliopsis helianthoides</i>	False Sunflower	
<i>Houstonia nigricans</i>	Narrow-Leaved Bluets	
<i>Lespedeza capitata</i>	Round-Headed Bush Clover	
<i>LESPEDEZA CUNEATA</i>	Silky Bush Clover	
<i>Liatris punctata</i> var. <i>nebrascana</i>	Dotted Blazing Star	S3
<i>Linum sulcatum</i>	Yellow Flax	

<i>Lithospermum incisum</i>	Fringed Puccoon	
<i>Lygodesmia juncea</i>	Skeleton Plant	S3
<i>MEDICAGO LUPULINA</i>	Black Medick	
<i>MELILOTUS ALBA</i>	White Sweet Clover	
<i>Muhlenbergia cuspidata</i>	Prairie Satin Grass	
<i>Petalostemum purpureum</i>	Purple Prairie Clover	
<i>Schizachyrium scoparium</i>	Little Bluestem	
<i>Senna marilandica</i>	Maryland Senna	
<i>SETARIA GLAUCÀ</i>	Yellow Foxtail	
<i>Silphium integrifolium</i> var. <i>laeve</i>	Rosinweed	
<i>SOLANUM ROSTRATUM</i>	Buffalo Bur	
<i>Solidago altissima</i>	Tall Goldenrod	
<i>Solidago rigida</i>	Stiff Goldenrod	
<i>Sorghastrum nutans</i>	Indian Grass	
<i>SORGHUM HALEPENSE</i>	Johnson Grass	
<i>Symphoricarpos orbiculatus</i>	Coralberry	
<i>Tridens flavus</i>	False Redtop	
<i>Verbena stricta</i>	Hoary Vervain	
<i>Yucca glauca</i>	Soapweed	S2



Bouteloua gracilis



Agalinis aspera



Dalea candida



Silphium integrifolium

Editor's Note: Kudos to **Tim Smith** for planning our varied and spectacular field trips this year. Many thanks to **John Oliver, Bruce Schuette, Kathy Thiele, and Pat and Jack Harris** for sharing their photographs—from all our 2004 field trips—of the native flora and fauna we discovered and the MONPS members having a great time too.

If you are interested in joining us on our field trips during 2005, become a member today by contacting **Ann Earley**. If you are a member and would like to visit one of our state's rich botanical areas with the Society, be sure to tell one of our board members or chapter representatives about your special place before our Winter State Board Meeting on December 4th, or join us in Columbia.



MONPS members (L to R) Rex Hill, George Yatskievych, Kathy Thiele, Lia Bollmann, Pat Harris, Marie Frye, Larry Morrison, Tim Smith, Ann Earley, Bob Siemer, Sue Hollis and Judy Turner enjoy the view at the Jamerson C. McCormack Conservation Area.



Solidago rigida



Aster oolentangiensis



Lespedeza capitata

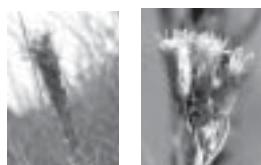
Photographs Courtesy of
JOHN OLIVER
View All & More in Their Original
Color Format at:
<http://community.webshots.com/user/oliverjcomo>



MONPS members hike up one of the loess mounds in search of native plants at the Star School Hill Prairie Conservation Area.



MONPS members enjoy the copper-colored stems of Indian grass as it sways in the late summer wind at Squaw Creek National Wildlife Refuge.



*Liatris
punctata
var.
nebrascana*



Sorghastrum nutans



Bouteloua hirsuta

Petals & Wings

Betty Walters, Editor



"What season do you like best, Mom?" Bill, my son, ask during a recent visit home as we leave the house for a hike in the City Park next door.

"Oh. I don't know. I think I've liked them all," I answer, winking at him. He smiles, knowingly, back at me. He is a grown man now and can see my autumn, in life, is approaching.

"Spring has its emerging buds and blooms. Summer is lush, green, and overflowing with every imaginable color in flower, bird in song and buzz of insect. Whatever blooms we loose in autumn, they are amply replaced by leaves in colors just as pleasing, don't you think?" I ask him. He nods in agreement. We enter the park, and I continue, "Then, of course, there's the winter. It always brings such a peaceful rest with its silence."

"I think I like the fall best—the sun, the wind, the cool mornings, warm afternoons, clear star-filled nights," he says, and the broad smile on his face seems to permeate him with pure joy. "And the trees, Mom. They are just gorgeous this time of year." His voice drops away, softly.

We stop and stand side-by-side gazing from the hilltop on the hiking trail at the setting sun spinning shafts of shimmering golden rays and painting the gathering wispy clouds in vibrant shades of pink, rose and dusky blue. Below us is spread a thick carpet of sweet browning grass that flows to meet the rows of long, clear, gray red maple trunks and towering straight, dark, flat-ridged trunks of the cottonwood trees at the bottom of the gentle slope.

mering golden rays and painting the gathering wispy clouds in vibrant shades of pink, rose and dusky blue. Below us is spread a thick carpet of sweet browning grass that flows to meet the rows of long, clear, gray red maple trunks and towering straight, dark, flat-ridged trunks of the cottonwood trees at the bottom of the gentle slope.

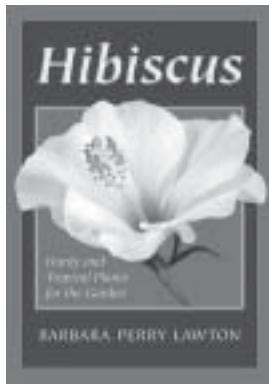
After the first frost, the narrow crowns of yellow fringed maple leaves began to deepen into their dazzling hues of ruby and burgundy. Most of the bright yellow leaves on the cottonwoods have fallen in the days before to reveal the massive branches in the round tops.

Bill and I stand still, for a lingering moment more, as a gentle breeze comes in from the west. We watch as it moves through the maple treetops until every leaf delights us with their dance to the dying light of the day.

As the first stars began to glow like tiny diamonds in a darkening turquoise velvet sky, we start for home, and Bill turns to me and ask, "God is an artist, isn't He, Mom?"

"Yes, He is, and a scientist too," I reply. "And of all the things you will learn in your life, remember these words well, 'Beauty is truth, truth beauty—that is all ye know on earth, and all ye need to know.' John Keats, *Ode on a Grecian Urn*."

Hibiscus: Hardy and Tropical Plants for the Garden



For anyone, who is interested in learning about and growing *Hibiscus* in the home garden, this book is a must have. In her latest book, Barbara Perry Lawton surveys both kinds of hibiscus: the tropical, subtropical, and warm-temperate plants whose pure, clean colors are such grand assets to modern gardens and homes, as well as the hardy perennials and shrubs that thrive in spite of snow, ice, drought, flood, or poor soil, bearing bright flowers year after year.

Hibiscuses have entered an era of increasing popularity as garden designers and home gardeners rediscover the fine attributes of these wonderful plants. Barbara's book is the only one that covers the species and cultivars of the genus *Hibiscus* completely and in detail.

These classic flowers have a long and fascinating history. The book contains chapters that chronicle the history and traditions of their use in addition to those of *Hibiscus* relatives such as hollyhocks, okra, and one of the world's major crops—cotton.

With more than 200 species, there is great diversity in the genus *Hibiscus*. This variety has been drawn on and increased through selection and breeding by generations of hibiscus enthusiasts. Lawton introduces all gardeners, expert and novice alike, to the possibilities offered by these plants. In addition to covering the distinctive forms of different hibiscuses, she provides information on the various aspects of their cultivation, including propagation. A photographic gallery of hibiscuses illustrates the richness of the many species and cultivars from which the gardener may choose.

Barbara, a Valley Park, Missouri resident, began writing about hibiscuses five years ago; she had not known much about either the hardies or the tropicals until then. The more she learned the more she liked them. She discovered wild ones near her home and was totally sold. Barbara volunteers weekly as a Master Gardener at the Missouri Botanical Gardens and has served as editor and manager of publications for the Garden, president of the Garden Writers Association of America, and weekly garden columnist for the *St. Louis Post-Dispatch*.

Author: Barbara Perry Lawton. Published September 15, 2004, Hardcover, 184 pp., 49 color photos, 17 line drawings, 1 map. US\$27.95, £19.99, ISBN: 0-88192-654-X, ©2004 Timber Press.

Kansas City Chapter

Ends Summer Hibernation

By Daniel R. Rice, Chapter Representative

The Kansas City Chapter awoke from its Summer hibernation on 16 September 2004—the first of the Fall meetings. After catching up on business, we viewed a very good film produced by the MDC: *Invasion of the Aliens*. This film is quite informative about the invasive tendencies of Musk Thistle, Purple Loosestrife, Gypsy Moths and Zebra Mussels. We discussed the Patch Program too.

Our first field trip of the Fall was on 25 September. We visited the Jerry Smith Park to look for the Eared false foxglove. We sold plants at Powell Gardens the 24th, 25th, and 26th of September.

KCWWildlands, a group with which we are affiliated, had a seed collection workshop on Sunday, 3 October at Lakeside Nature Center. The goal is to train a group of volunteers to recognize and collect native plant seed at the correct time for use in restoration.

We are being represented in a new group dedicated to the salvaging of native plants from areas scheduled for construction projects. The group is sponsored by Steve Van Rhine, a wetlands biologist with the MDC. Hopefully, as members of this group, we can save local genotypes of our native plants.

October 9 and 10 found members manning a booth at the annual Week of Water in Kansas City. This was our first time to actually have a booth; last year another organization kindly handed out our brochures. This is an educational “fair” about water and its many uses.

Finally, on 16 October we had a field trip to Maple Woods Environmental Area where we searched for Fall orchids, Indian pipes and persimmons.

While we take a break during the Summer months, we try to make up for it in the Fall!



Climb the mountains and get their good tidings. Nature's peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves. ~John Muir

Osage Plains Chapter

Meeting & Potluck Dinner Memorable

By David Lindell, Osage Plains President

The Chapter meeting held 18 September at the farm of Carolyn and Bud Henzlik (attendance 28) was educational and enjoyable. There were many interesting garden crops and specialty crops to observe in addition to native wild flowers. Their farmstead is well maintained, even though a storm destroyed many trees around the farm and in their timber property. Their restored barn, and other restored farm buildings filled with antiques, provided an enjoyable tour associated with the Osage Plains Chapter Annual Meeting and Potluck Dinner. Several attended from garden clubs in Appleton City, Lowry City and Montrose.

The food and fellowship was excellent and will be remembered by all. Some reasons for the success of the 2004 meeting probably are: the rural setting, plant material for observation, and the barn and other farm buildings decorated with antique items at the Henzlik Farm.

The program was given by Dr. Sam Angima, Agronomy Specialist, University of Missouri Extension Service. He provided a power point presentation of their trip to Kenya, Africa to visit his relatives and the relatives of his wife, Florence. Eight years have passed since they were in Kenya, so this was a moving homecoming for the Angima family. Sam has completed the Ph.D degree in land management, and Florence has a Masters degree in Family Studies. Both are employed in Clinton.

Sam discussed the limited resources and the need people in Kenya have for assistance compared to our living conditions in west-central Missouri. We need to assist others around the world.



May the silent beauty of the season bring you peace.

Committee Recommendations for Revision

MONPS Coneflower Badge of Achievement

By Judy Turner, Patch Committee Chair

The Patch Committee recommends the following to the State MONPS Board for consideration in revising the Coneflower Badge of Achievement Program. Finalization will be made at the Winter State Board Meeting.

I. Revision of steps to be fulfilled

STEP 1: (Everyone must complete this step)

- Identify and record thirty (30) wild Missouri plants outdoors. Choose a variety of types, i.e., perennials, shrubs, trees, vines, grasses, herbs, ferns, etc. List each one by common and scientific name.

- Note the location, habitat (growing conditions), and abundance of each plant found.

- Note what stage the plant is in (flower, seed, fruiting, or none).

- Note plant type, leaf type and, if flowering, note the flower type and color.

- Note the date you found each plant.

- Now choose and complete at least seven of the following steps to complete the basic level.

- For the intermediate level complete five additional steps for a total of 12 steps. For the advanced level you must complete all of the 17 steps. Completion of the additional steps for the higher levels may be done in stages.

STEP 2: Illustrate your project showing at least 10 of the plants identified in Step 1 by sketching, photographing, tracing, photocopying, or other graphic means. Include both blossom and leaf.

STEP 3: List 10 plants that have escaped cultivation and because of their rapid spread into the native ecosystem are considered to be undesirable exotics. For each one note the plant's origin, where it might be found, and why it is a problem.

STEP 4: Choose two plant families. List up to 10 species in each family that are found in your area. List up to 10 not found in your area. What common characteristics does each family share which distinguishes it from the others?

STEP 5: Find five native plants which have at least one relative that can be found in your local flower shop, greenhouse, garden, farm, or field. List the native plant, its relative, and at least one common characteristic the two share.

STEP 6: Identify (X) plants found in Missouri that are considered to cause skin irritations to humans. Note their identifying characteristics for each season. Identify similar looking plants that are not usually irritants and discuss their differences.

STEP 7: Name five wild plants found in Missouri used for medicinal purposes today. What specific part(s) is/are used? Note the potential uses for each plant. Name five other wild plants previously used by Native Americans for medicinal purposes, the plant part and their uses. Name five other wild plants currently found in Missouri that have other, non-medicinal uses, the plant part, and the use.

STEP 8: List 15 wild plants found in Missouri that have edible parts. Name the edible part(s) of each specific plant and tell how it/they is/are prepared. List five plants to avoid eating, naming the toxic part(s) and the potential toxicity.

STEP 9: List some organizations in your community, state, and/or nation which are working for the protection and propagation of wild plants. Discuss their activities. How can you help them?

STEP 10: Attend a local or state meeting or activity of the Missouri Native Plant Society. Write a brief report of the plant-related business covered at the meeting or activity. Discuss any information you learned about native plants.

STEP 11: Visit a natural native plant area, e.g. glade, prairie, forest, wetlands, where native plants can be found. How is the area different from a non-native or domesticated area, e.g. pasture, lawn, flower bed, field? Are the plants in the natural area being protected? Should they be? What is their possible future?

STEP 12: Choose a small natural area from one to two yards square and list all plant and animal life found in that area. Date your list. Describe other features of the habitat, such as soil, water, exposure, and shelter. Note the association or interdependence of the various plants and animals. Note: If you select this step for the basic level, you may also select it for the other levels using a different season.

STEP 13: Using your library, local bookstore, or the internet identify 10 references (not including the references listed in this pamphlet) for plant information. Note the category and full reference information for each.

STEP 14: List at least four local, state, and/or federal agencies that manage land in Missouri that is open to the public. Discuss the role that each of these agencies plays in conserving the land. Visit one of these sites and describe the measures being taken to protect native plants.

STEP 15: Describe 15 of the most threatened Missouri plant species currently identified by the Missouri Department of Conservation. Discuss why they are threatened, why they should be protected, and what you can do to aid in their protection.

STEP 16: Write a short essay on the ethics of using native plants and conservation. Include how native plants contribute to our environment.

STEP 17: Discuss the two major methods of plant propagation—reproductive and vegetative. Include how each is achieved and why that method is desired. List five plant examples of each type of propagation.

II. Add the following to the Suggested References existing list

- Smith, Tim: *Missouri Plants of Conservation Concern*

- Smith, Tim: "Plants That Won't Stay Put," *Missouri Conservationist*, April 2001

- Web Sites: MOBOT, Grow Native!, MOEcotype, MONPS, others

III. Rocker bar additions to the patch and other items for the higher levels will be awarded

- See last paragraph under revised **STEP 1**.

IV. No charge for the patch or additional items awarded for step fulfillment

Folks who have gone through the effort to completely document and submit the required information should not be required to pay for the patches. Their cost in time and mailing the information is considerable compared to the cost of the patch and other possible awards.

If you have suggestions, recommendations, or questions, please contact Judy today (see back page for contact information).



Thank You Hawthorn Chapter

The Society wishes to extend an appreciative "Thank You" to the members of the Hawthorn Chapter, who generously gave their time and talents to participate in the revitalization and revision of this program.

A special "Thank You" to Judy for volunteering for the task of Chair and her masterful foresight and relentless effort to oversee the project.



12 June 2004 MDC Ozark Regional Office, West Plains, Missouri SOCIETY ANNUAL & QUARTERLY BOARD MEETING HIGHLIGHTS

President Kathy Thiele opened the meeting. Immediate Past President Jack Harris, on behalf of the Society, conferred awards on four recipients.

SUMMARY OF PAST YEAR'S ACTIVITIES: Kathy Thiele. Since our last annual meeting we've visited the sand prairies and other areas in SEMO, Caney Mountain Glades, Tingler Prairie, Van Der Hoef Memorial State Forest, Myatt Pond and Adobesee Pond (thanks to Tim Smith). Sponsored Bryophyte and Carex Workshops (thanks to Paul McKenzie and Nels Holmberg). Sent representatives to serve on the Wild Areas Advisor Committees and Missouri Conservation Forums (thanks to Max Towler, Jack Harris and Alan Brant). Have new T-shirts to sell for fundraisers. MONPS continues to produce a high quality newsletter, the *Petal Pusher* (thanks to Betty Walters and many other contributors), website (thanks to Robin Kennedy), and our Journal, *Missouriensis* (thanks to George Yatskiewych and other editors). Support for GrowNative!.

TREASURER'S REPORT: Bob Siemer (report on file with Secretary). Total operating revenue increase of ~\$1500.00 for the year. Interest rates are rising and the Hudson CD comes due in September. The fiscal year closes at the end of the month (June); thus, there will be slight changes in the finances at year end the budget for 2004 and 2005 (projected) was presented. Operating deficit for 2005. In the 2005 fiscal year, the Hudson fund will allow an award of \$500. T-shirt sales have been mostly to chapters.

BOARD ELECTION: Board Member Bruce Schuette and Board Member John Oliver were re-elected by acclamation.

George Yatskiewych offered a "Good job!" to Kathy for her work as MONPS President. Paul McKenzie suggested Glacier National Park as a future Annual Meeting site (:). Sue Hollis praised Betty Walters for initiating gardening articles in the *Petal Pusher*. Larry Morrison noted that MONPS is in its 25th year, so we must be doing something right. Past Presidents Larry Morrison, Bill Summers and Jack Harris were present at the meeting and were invited to "take a bow."

QUARTERLY BOARD MEETING CALLED TO ORDER BY KATHY THIELE (KT)

Quorum assessed okay. Agenda approved. Tim Smith appointed assignment recorder. The minutes of April 17, 2004, Caney Mountain, MO, were approved.

PUBLICATIONS & MEDIA

MISSOURIENSIS: George Yatskiewych (GY). The next issue will go to the printers by the end of the month.

MONPS WEBSITE: Robin Kennedy (RK). Website e-mail contacts have been established.

COMMITTEES & TASK FORCES

MEMBERSHIP STATS: Ann Early (AE). 410 members, 37 exchange (of publications); 373 actual persons. Dues are due; the *Petal Pusher* will have renewal envelopes.

Bob Siemer Moved that the Board approve the expenditure of up to \$100.00 for renewal envelopes this year, and that in the future the funds be included in the annual budget. Paul McKenzie Seconded the motion. The Motion **Passed**.

LIFE MEMBERSHIPS: Kansas City, Saint Louis and Hawthorn will honor state life memberships as chapter life members; Osage Plains will not. KT noted that life members who would like to donate to a chapter may do so. KT spoke with someone from Licking about a new chapter. Bruce Schuette stated that Mike Skinner was interested in a Springfield chapter. Max Towler is interested in helping.

HUDSON FUND COMMITTEE REPORT: GY. Solicitations should be sent out in January or February in order to make awards by the end of the semester (other societies have a similar schedule); how the award will be administered needs to be addressed.

CHAPTER REPORTS & CHAPTER FOLLOW-UP REVIEW: Kansas City, Hawthorn, St. Louis, and Osage Plains (reports on file with Secretary); Jefferson City (no report).

SOCIETY BUSINESS: Wild Area Advisory Committee Meeting, Mudlick Mountain at Sam A. Baker. Alan Brant attended the meeting and sent a report to President Kathy Thiele (on file with Secretary).

BY-LAWS CHANGE FINALIZATION: Paul McKenzie Moved to accept the text of Article VI, Section 11 be accepted as written, with the exception of the statement to be deleted (refer to previous approved motion). Marlene Miller Seconded the motion. The motion **Passed**.

OPERATING MANUAL STATUS: Pat Harris. Details of each job should be written so that the next person to fill a position can "step in and go."

FUNDRAISER/T-SHIRTS: Sue Hollis. Max Towler Moved that 200 more shirts be ordered. Paul McKenzie Seconded the motion. The motion **Passed**.

BROCHURES: GY Moved to initiate dissolution proceedings against the Jefferson City chapter in accordance with the by-laws. Marlene Miller (MM) Seconded the motion. The motion was **Approved**. MM Moved to remove Jefferson City from any dues notices, *Petal Pusher* or brochure information at the present time. Bruce Schuette Seconded the motion. Sue Hollis suggested the motion be amended to say "all publications" instead of listing specific ones. The amended motion **Passed**.

Q: 5000 printed? **A:** Yes. MM Moved that the necessary funds for brochure printing be released. TS Seconded the motion. The motion was **Approved**. Kansas City will reimburse the state for 1000 brochures. Paul McKenzie asked how effective the brochures are at bringing in new members. **A:** 10-20% of new members come from brochure.

MONPS "CONEFLOWER" PATCHES: Nadia Navarrete-Tindall. Betty Walters will send a pdf of the coneflowers brochure out and would like to receive comments by the next Board meeting.

RESEARCH AT BRADFORD AND SOUTH FARMS (RESEARCH AND EXTENSION CENTERS): Nadia Navarrete-Tindall. Cool season grass research has been conducted since 1999. Plots of these can be viewed at South Farm on July 13 Field Day.

THANK YOU'S AND GRATUITIES POLICY: Sue Hollis. GY Moved that a T-shirt be offered to all Friday night speakers who cannot accept a gratuity. Bruce Schuette Seconded the motion. The motion **Passed**.

APPRECIATION: Thank you to all for coming; thank you to Tim Smith for the field trips.

ADJOURN: Bob Siemer Moved that the meeting be adjourned. Bruce Schuette Seconded the motion. Meeting adjourned.

PRESENT AT MEETING:

Pat Harris	Jack Harris
Kathy Thiele	George Yatskiewych
Max Towler	Sue Hollis
Paul McKenzie	Ann Earley
Bob Siemer	Bruce Schuette
Tim Smith	Kim McCue
Kay Yatskiewych	Nels Holmberg
Nadia Navarrete-Tindall	Betty Walters
Marlene Miller	Larry Morrison*
Nancy Morrison*	Bill Summers*
*Annual meeting only	

RESPECTFULLY SUBMITTED:
Kimberlie McCue,
MONPS Secretary

Species of Concern

MDC Expands Assessment to Include Terrestrial Natural Communities

By Jack H. Harris

The table (below) presents a numerical summary of the State's population status of lichens, liverworts, mosses, ferns, and native flowering plants as is presently known.

The Missouri Department of Conservation has recently expanded this assessment process to include Terrestrial Natural Communities by major community types. The table summarizes the status of that effort to date.

PLANTTYPE	RANK ⁽⁴⁾							TOTALMOTAXA-Est = 436 ⁽¹⁾
	S1	S2	S3	SH	SX	OTHER	TOTAL	
Lichens	12	2		1		9	24	
Liverworts & Hornworts	10					11	21	
Mosses	49				1	33	83	= 400 ⁽²⁾
Ferns & Allies	11	7		1	1	3	23	
Flowering Plant	191	100	18	87	4	58	458	=2382 ⁽³⁾
RANK								
NATURALCOMMUNITYTYPE	S1	S2	S3	S4	S5	SH	TOTAL	
Forest	2	3	7	3			15	
Woodland	3	4	6	4	1		18	
Savanna	2					4	6	
Prairie	5	5	2				12	
Glade		3	2				5	
Cliff/Taulus		1	4	5	1		11	
Wetlands	5	7	1				13	
Stream Edge		1	2				3	
Cave					3		3	

Definitions of codes in the table: **S1**=Critically imperiled, highly vulnerable to extirpation, (typically fewer than 5 populations); **S2**=Imperiled due to rarity, vulnerable to extirpation, (6-20 occurrences or few individuals); **S3**=Rare and uncommon (21-100 occurrences); **S4**=widespread, of strategic concern; **S5**=widespread & abundant in MO; **SH**=Historically reported, subject to rediscovery; **SX**=Extirpated from the State; Other=aggregate of various other ranks & qualifiers.

(1) The total number of Lichens (taxa) in Missouri as reported in "Checklist and Bibliography of Missouri Lichens" by Douglas Ladd, 1996; Conservation Commission of the State of Missouri.

(2) The total number of Bryophytes (Liverworts and Mosses) in Missouri as estimated in "The Biodiversity of Missouri: Definition, Status, and Recommendations for its Conservation," 1992. Missouri Department of Conservation & the Mark Twain National Forest, USFS.

(3) The total number of taxa (ferns & flowering plants) estimated at the end of 1997. See Table 7, page 83 in Steyermark's *Flora of Missouri*, Revised Edition 1999, by George Yatskievych, Missouri Department of Conservation and the Missouri Botanical Garden.

(4) The S1 ... S4, etc., ranking system was developed by The Nature Conservancy, Conservation Science Division and adapted for use by MDC.

The table (above) is derived from The Missouri Department of Conservation Report *Missouri Species and Communities of Conservation Concern Checklist -January 2004*. Note that the **TOTAL MO TAXA-Est** totals are from other sources.

The source document contains complete species listings, state rankings(eclectic sampling presented above) and global rankings. Many listed plants with a high State ranking (S1/S2...) may be widespread/abundant (S5) when considered on a regional/continental basis.

Included in the table entries are (10) Missouri species that are federally listed under the Endangered Species Act(ESA): *Asclepias meadii* (Mead's milkweed); *Boltonia decurrens* (decurrent false aster); *Geocarpon minimum* (geocarpon); *Helenium virginicum* (Virginia sneezeweed); *Isotria medeoloides* (small whorled pogonia); *Lesquerella filiformis* (Missouri bladderpod); *Lindera melissifolium*; *Platanthera leucophaea* (eastern prairie fringed orchid); *Platanthera praecox* (western prairie fringed orchid); and *Trifolium stoloniferum* (running buffalo clover).

A companion publication that contains descriptions and color illustrations of 37 of the listed plants which are at greatest risk is *Missouri Plants of Conservation Concern*, by Tim Smith, 2000, MDC. This document may also be downloaded for viewing from: [<http://www.conservation.state.mo.us/nathis/endangered/>].

MDC publications are available upon request to Missouri Department of Conservation, PO Box 180, Jefferson City, MO, 65102-0180; 573-751-4115. (I recommend that all interested parties obtain a copy of the referenced document for ready reference and an enhanced appreciation of their field observations of our natural heritage.)



The Missouri Native Plant Society Celebrates 25 Memorable Years

Editor's Note: Five years ago, Larry R. Morrison, with forethought and determination, wrote a history of our Society. Now our readers will have the opportunity to witness how an idea becomes reality. It is with great pleasure we pay homage to our past by bringing you **PART (4)** of our story.

FROM GERMINATION TO FLOWERING:

The First Twenty Years of the Missouri Native Plant Society By Larry R. Morrison

Eventually, after long discussion, the board was able to adopt "a composite statement" which became the society's policy on the related issues of collecting and transplanting wild plants. With regards to collecting, the board concluded:

The Missouri Native Plant Society recognizes the value of responsible plant collecting to the botanical sciences. Judicious collecting from healthy populations of common plants is not discouraged. Student collections generally should be limited to such populations. The collection of rare plants should be undertaken with extreme care. Small populations should not be unnecessarily jeopardized, nor should duplicate collections be made unnecessarily from the same population. When the documentation of a rare plant is necessary, consideration should be given to the use of a photo or the collection of a part of the plant in lieu of the entire specimen. Arrangements should be made to ensure that all specimens will ultimately become the property of a public herbarium. Even with this statement, the debate over this issue continued for many months in a series of letters published in the next several issues of *Missouriensis*.

In terms of transplanting natives, the board resolved: Decisions to propagate and/or transplant native plants should be approached carefully. In general, the transplanting of rare native plants from the wild to private gardens is discouraged, although this may be prudent under special circumstances; for instance, in the case of salvaging plants from a site soon to be destroyed. Only under these circumstances would digging of native plants be justified. The collecting of seeds for propagation is proper, if the collector uses care to gather a supply from several areas to assure that no local seed supply is seriously affected by seed collecting. It is recognized that propagation and transplanting to a wild habitat may be desirable if the status of some rare species is to be enhanced. When these activities are undertaken, care should be taken to preserve native local genotypes where possible. Suitable sites may be established as "genetic banks" for rare and endangered species, but these should not encroach on valuable communities where preservation as an intact entity is vital. Transplanting efforts should attempt to maintain fidelity of original species' ranges and habitat

conditions as well. Complete records of all such activities should be carefully maintained. The Missouri Native Plant Society should discourage the intentional sowing of seeds or planting of specimens into habitats undisturbed. The seeding and introduction of native species could be considered for the institutional garden, greenhouse or other controlled areas.

At the society's first annual meeting, held June 7, 1980, at the Lake of the Ozarks State Park, the board spent considerable time examining the current state of MONPS. The basic and unhappy consensus was that the society was "floundering," in the sense of "struggling to obtain footing." As an example of this, Vice President Edgar Denison raised anew the whole issue of what the society planned to do with all the materials collected about Missouri's flora, and where those materials would be deposited. This led to long discussions about whether MONPS should work through regional groups centered in educational institutions or interested volunteers, and about whether sufficient interest in the study of Missouri's flora could be generated among people who were not rewarded by either pay or academic credit.

It was pointed out that much material had already been published in *Missouriensis*, including information about habitats and sightings. The consensus, however, was that the society should receive much more of this type information, such as lists of plants seen on field trips, reports of what seemed to be areas of unusual flora interests, unusual habitats, or those that were in danger of destruction. Board members recognized that all such reports could not be published but several board members emphasized that no one should hold back such information because it would stimulate the professional representatives to maintain their interest in the society's objectives, while, at the same time, it would give the many well-informed, but not professionally associated, members of MONPS a funnel through which their contributions became significant and would be recognized as such. Following this extended discussion, the board was delighted to accept the offer of board member Gary Reese to become the "clearing house" through whom such materials could be checked.

At this point, Wallace R. Weber of Southwest Missouri State University introduced a project that seemed to put all these discussions into focus, and to represent a target towards which MONPS could move in its "struggle to obtain footing." Weber outlined his idea for a manual of the Missouri flora which would update Steyermark's work and be more readily usable in the field. Board members unanimously agreed that the society should endorse and sponsor this proposal.

INFORMATION ON JOINING MISSOURI NATIVE PLANT SOCIETY

SOCIETY DUES

(Chapter dues additional)	
Student	\$5.00
Regular	\$10.00
Contributing	\$20.00
Life	\$200.00

CHAPTER DUES

Columbia	\$6.00
Kansas City	\$5.00
Osage Plains	\$5.00
St. Louis	\$5.00

(Circle all that apply)

Do not publish my name and address in the membership list.

Make check payable to: Missouri Native Plant Society

Mail to: Missouri Native Plant Society
PO Box 20073, St. Louis, MO 63144-0073

Name _____
Street _____
City, State _____
9 digit Zip _____ Phone _____
E-mail _____

Missouri Native Plant Society
P.O. Box 20073
St. Louis, MO 63144-0073

ADDRESS SERVICE REQUESTED

Inside This Issue

- September Loess Hill Plant List with Photos
- Winter State Board Meeting Is December 4th
- WGNSS Seeks Applications for Scholarship
- Badge of Achievement Undergoes Revisions

Non-Profit
Organization
U.S. Postage
PAID
St. Louis, MO
Permit No. 1720

Missouri Native Plant Society Officers and Board Members

PRESIDENT

Kathy Thiele
4 Rodelle Woods
Weldon Spring, MO 63304
636-300-9290
thiele6336@aol.com

VICE-PRESIDENT

Jay Raveill
Biology Department
Central MO State University
Warrensburg, MO 64093
660-543-8812(w)
jar812@cmsu2.cmsu.edu

SECRETARY

Kimberlie McCue
MO Botanical Garden
PO Box 299
St. Louis, MO 63166
314-577-9497
kimberlie.mccue@mobot.org

TREASURER

Bob Siemer
74 Conway Cove Drive
Chesterfield, MO 63017
636-537-2466
rivas42@prodigy.net

IMMEDIATE PAST PRESIDENT

Jack Harris
9708 Green Park Rd.
St. Louis, MO 63123
314-368-0655
jahar@mac.com

BOARD MEMBERS

Pam Haverland ('02-'05)
6901 Ginlet Lane
Columbia, MO 65201
573-443-2189
pamela_haverland@usgs.gov

ROBIN KENNEDY ('02-'05)

University of Missouri Herbarium
Columbia, MO 65211-3170
573-882-6519
umoherb@missouri.edu

JOHN OLIVER ('04-'07)

4861 Gatesbury Dr.
St. Louis, MO 63128
314-487-5924
joliver02@earthlink.net

BRUCE SCHUETTE ('04-'07)

678 St. Rt 147
Troy, MO 63379
636-528-7247(w)
baesch@nothnbut.net

MAX TOWLER ('03-'06)

7906 Hwy 23 N
Eureka Springs, AR 72631
479-253-8137

ARCHIVES

George Yatskivych
See *Missouriensis*

ENV. AND EDUC.

John Oliver
(see board members)

FIELD BOTANY

Tim Smith
1704 W. Main
Jefferson City, MO 65109
573-635-8085
Tim.Smith@mdc.mo.gov

MEMBERSHIP

Ann Earley
1425 Bobolink Pl.
St. Louis, MO 63144-1128
314-963-0103
aee623@prodigy.net

PUBLICITY

Vacant

MISSOURIENSIS,

CO-EDITORS
George Yatskivych
MO Botanical Garden
PO Box 299
St. Louis, MO 63166
314-577-9522(w)
george.yatskivych@mobot.org

PETAL PUSHER,

EDITOR
Betty Walters
413-B Hanna Road
Ballwin, MO 63021
636-527-4194
bettyluvsinsects@yahoo.com

DISTRIBUTION MGR.

Nathan Pate
1148 Fairview Dr.
Ballwin, MO 63011-2225
JKNP@att.net

EDITORIAL COMM.

David Castaner
Paul Redfearn
Tim Smith
Stephen L. Timme

CHAPTER

REPRESENTATIVES
COLUMBIA
Judy Turner
jtejasrv@yahoo.com

KANSAS CITY

Daniel Rice
815 W. 31st St.
Independence, MO 64055
816-461-0206
Drice95875@aol.com

OSAGE PLAINS

Marlene Miller
949 NE HWY C
CALHOUN, MO 65323
660-694-3581
jwmiller@iland.net

ST. LOUIS

Nels Holmberg
530 W. Whiskey Creek Rd.
Washington, MO 63090
636-583-4551
nholmbrg@fidnet.com



Printed on
Recycled Paper

http://www.missouri.edu/~umo_herb/monps