WILDFLOWER

A non-profit organization dedicated to researching and promoting wildflowers to further their economic, environmental and aesthetic use.

Newsletter of the National Wildflower Research Center Vol. 2, No. 4 Winter 1985-86

A Message from Helen Hayes

Co-chairman Helen Hayes

When my long-time friend Lady Bird Johnson first approached me to become involved in the then planning stages of the National Wildflower Research Center, I was honored and pleased to accept. The natural beauty of wildflowers has always provided me with a peaceful and happy feeling. I have reveled in the fresh and ever-changing patterns of spring and summer color, the serenity and delicate beauty of the individual flowers, and especially in the stability and permanence they represent.

I have seen them diminish in expanse and variety as our nation's population has grown. The goals and purposes of the Center, therefore, are timely and worthwhile. I joined Lady Bird Johnson and the other dedicated members of the Board of Trustees in the establishment of this much-needed organization, based on my personal understanding and love for what we have been generously given by nature's beauty.

As the Center has developed and operated over the past three years, I have added to my already deep love of the beauty of wildflowers. As a result, I have a broader appreciation for the economic benefits of establishing and using natives in landscaping plans. What could be more compelling in these coming years than to realize economic benefits from the establishment of more beauty?

I am proud to be a part of this effort and am delighted by the rapid and widespread acceptance of the Center's purposes and goals. With continued public support and encouragement, those ideals will become reality throughout our beautiful land.

Helen Hayes

Expeditions in the Springtime:

Head for the Hill Country

In response to the increasing interest in enjoying wildflowers during their blooming season, the National Wildflower Research Center will be sponsoring several bus tours of the Texas Hill Country during Spring 1986 in conjunction with Local Arrangements, Inc. of San Antonio, Texas.

A Wildflower Center botanist and guide will accompany the tours, which will feature a breathtaking mixture of some of the best-known public and least-known private wildflower areas. Included will be a survey of the Center's research and demonstration plots at the LBJ Ranch. Because of the restrictions of a small group, prompt reservations, with the accompanying payment, are essential.

Cancellations made up to fourteen days prior to departure will receive refunds. Mail your check, made payable to Wildflower Expedition, to:

Local Arrangements, Inc.
The Dullnig Building, Suite 200
262 Losoya
San Antonio, TX 78205
(512) 224-3061

Please make inquiries about the tax deductible contribution to the Center.

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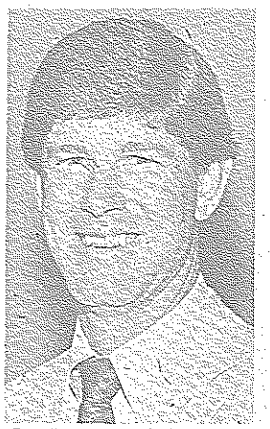
Spring Tours
at the Center

Our tours of the Center begin April 22 and continue through May 25. Tours include the NWRC slide show with Lady Bird Johnson and Cactus Pryor narrating, a walk-through tour of the greenhouse and explanations on research seeding plots and area fields.

Tours will be conducted Tuesday, Wednesday and Thursday 10-1 and Sunday, 12-2, or call for reservations. Larger groups should call ahead for special arrangements. Call (512) 929-3607 for directions and information.

Education in Wildflowers: Our Progress and Ideas

Wildflower education is a vital part of the goals of the Center. In addition to *Wildflower* articles and fact sheets available through our Clearinghouse, we have scheduled symposia in different regions of the country, bringing together the most knowledgeable experts available in all areas of wildflower work. Already, we have held successful symposia in New York and Washington, D.C., and have two more scheduled this spring for Georgia and Texas (see *From the Mailbox* in this issue.)



Dr. David Northington

For these meetings we identify a specific wildflower theme, then invite the most experienced and well informed speakers available to share their knowledge with the audience. We have found that those who *have done* can explain best *how to do*. The goal is to provide practical advice to complement theory and planning.

Our first two symposia stressed wildflower propagation and gardening for small areas, and included such speakers as Dr. Linda McMahon of the Plant Conservation Program, World Wildlife Fund, U.S., and Cole Burrell of the U.S. National Arboretum. The audiences were from horticultural societies, garden clubs, and the nursery industry.

The target audience for this spring's two symposia will include landscape architects, developers, urban and land planners, the nursery and seed industry, and large area land managers. The speakers will concentrate on *why* and *how* to landscape with native plants and show examples of successful large-scale projects. Information that works for large-scale developments is also useful for smaller areas. We hope homeowners, gardening enthusiasts, yard maintenance contractors, and others will find these presentations practical and beneficial.

DIRECTOR'S R·E·P·O·R·T

By bringing together those people who plan and direct maintenance of large open areas, we hope to encourage further use of wildflowers and native plants. I would like to extend my personal invitation to you to attend one of these symposia. Come to share your knowledge with other participants, in addition to picking up some useful ideas and techniques for yourself.

If you would like to plan a symposium in your region, do write to me at the Center with your ideas, as we plan to sponsor further symposia to continue awareness throughout the country.

Miriam Rothschild Inspects Wildflower Center

Each month the Center has its share of well-known visitors, and in October one of those who stopped in was Dr. Miriam Rothschild, famed entomologist, marine biologist, and botanist of the Rothschild family of England.

She is keenly aware of the need for conservation of the countryside in her native England, where many varieties of wildflowers are found. For this reason she is experimenting with wildflower cultivation on two acres of her farm land in Ashton Wold, England. She has had success with selling mixtures of wildflower seed, harvested from her extensive plantings of 35 acres, to gardeners and farmers. As Englands' version of our own Lady Bird Johnson, Mrs. Rothschild is encouraging wildflower mixes to be used along roadsides in her country; even though there has been some resistance and further education is needed, she says ". . . we are winning."

She took delight in inspecting the Center's wildflower research plots, as well as the new equipment, such as the drill seeder from John Thomas of Wildseed, Houston, Texas and the John Deere tractor!

Dr. Miriam Rothschild *aboard a NWRC tractor.*

Tour England This Summer

The National Wildflower Research Center is excited to be sponsoring a 10-day *Wildflower and Gardens* tour of southern England this summer. Between July 16-27, 1986, the tour will visit: the Royal Botanical Gardens at Kew; the wildflower meadows at Oxford; the Royal Horticultural Society Gardens at Wisley (Brighton); the Cinque Port of Rye; Sandwich Bay; Leeds Castle; the wildflower gardens of Sissinghurst Castle, and many other scenic and historic sights.

This vacation will have many highlights. Miriam Rothschild will host the group for a visit to her wildflower meadows, and the internationally renowned artist, Fleur Cowles, will host a lunch at her country home in Sussex. We are especially pleased that the Center's co-founder, Lady Bird Johnson, will join the tour for several days.

The tour is limited to thirty people, and is on a space available basis. More detailed information on itinerary and costs is available by writing to the Center.

Prairie Restoration

Why it's Necessary, How to do it

Katy McKinney
Staff Botanist

Some of the best examples of the complexity and beauty of nature are the North American Prairies. These vast grasslands once formed a major vegetation region in the United States.

Prairies, though, are more than just grass. The complex mosaic of forbs (nonwoody flowers), grasses, and members of the legume family make up the prairie community. This community is as diverse below the ground as above it, with the roots of each species occupying a slightly different underground level.

This mixture of plants, over thousands of years, has played an important part in developing the soil of our nation's most important agricultural areas, the central plains. This rich prairie product is no longer being formed, as the prairie is now farmland planted in monoculture crops. Unfortunately, in many areas, modern agriculture has depleted the soil, rather than build on it, as did the prairie. By studying the plant communities which developed this rich soil, we can begin to develop more sustainable farming practices such as growing several crops together, and plowing less frequently.

Only a few remnants of this beautiful, soil-building vegetation are left. However we can learn much about imitating nature from these prairie "islands." Prairie restoration projects have existed for at least fifty years. The most famous is the Curtis Prairie at the University of Wisconsin Arboretum, home of conservationist Aldo Leopold. During the Dustbowl years, Theodore Sperry directed a group of CCC (Civilian Conservation Corps) volunteers, who planted one of the first cultivated prairies. More projects followed in other states.

Imitating nature is not an easy task. There is a great difference between gardening with a few wildflower species, and creating an entire plant community. For best results the same species should be used as those found growing naturally in prairies. Although the tallgrass prairie appears to be a homogenous environment, it is composed of many different microhabitat types. Prairie restorationists must be sensitive to the subtle differences in a restoration site, such as land slope and soil moisture content.

> "Imitating nature is not an easy task."

Four of the dominant grass species of true prairie are big bluestem (*Andropogon gerardii*), little bluestem (*Schizachyrium scoparium*), indian grass (*Sorghastrum nutans*), and switchgrass (*Panicum virgatum*). These grasses originally occurred throughout the true prairie, locally abundant in some places and sparsely distributed in others. The occurrence of all prairie species depended on a variety of physical and biotic factors, with different mixes of species found in different areas. Much of present restoration work is experimental: the best prairie species for a given area are often determined by trial and error.

Prairie plants of a specific area are adapted to the local conditions of the area. For example, although little bluestem is found throughout the tallgrass prairie, seed from Wisconsin will grow better in Wisconsin than in Texas. Therefore, if possible, it is preferable to obtain locally grown seed. For small yard projects, hand collection of seed may be practical. However, for larger areas, native grass seed is commercially available.

Prairie restoration is currently an art and a science. There are few instructions for doing a restoration project, but following are some general guidelines.

- Learn to identify prairie species.
- Consult available resources to ascertain which plants may have grown in your area.
- Become familiar with propagation methods.
- Be willing to experiment.
- Plan on some weed control during the first years.
- Be patient, this plant community will take some time to develop.

Recommended books for further reading:

The Prairie Makers by John J. Berger. Sierra. Nov/Dec 1985.

Grass Systematics by Frank W. Gould and Robert B. Shaw. 1983.

The Grasses of Texas by Frank W. Gould. 1975.

Landscaping with Native Texas Plants by Sally Wasowski and Julie Ryan. 1985.

Prairie Propagation Handbook by Harold W. Roch. 1981.

New Roots for Agriculture by Wes Jackson. 1981.

Katy McKinney is a research botanist at the National Wildflower Research Center.

Springtime!

Learn About Wildflowers in Austin, Texas

Set aside March 11, 1986 on your calendar for the first *Wildflower Identification Seminar*, sponsored by the National Wildflower Research Center. The program will include: identifying local wildflowers with an emphasis on learning species by family, natural history, planting and growing selected species, and identifying wildflowers as seedlings. Each participant will receive an information packet.

The seminar will run from 9 a.m. to 12 noon, March 11, 1986 at the United Bank Conference Room, 400 West 15th Street, Austin, Texas. The cost is: $10 general public; $5 students; free to members of the Center with membership card. For more information, contact the Center at (512) 929-3600.

Gala, Symposium Scheduled for May

Lady Bird Johnson, Mr. & Mrs. George P. Mitchell, Helen Hayes, and a host of wildflower friends will enjoy the restored historic glory of Galveston, Texas at a gala event to benefit the National Wildflower Research Center on May 17, 1986. Prior to a fabulous dinner under a "crystal tent," there will be a special performance by Helen Hayes and opera star Dorothy Kirsten at the recently restored 1984 Grand Opera House, and cocktails at the renowned Tremont House. Individual ticket prices for the gala range from $250 to $500, with separate tickets available for the special performance at The 1984 Grand Opera House.

A **one day wildflower symposium** at The Woodlands, near Houston, Texas, has been scheduled for May 16. Experts in the fields of native plant landscaping, wildflower establishment and management, and large-scale development planning will speak at this gathering. It is especially designed for landscape architects, urban planners, architects, developers, large landholders, and managers. Because of limited space, contact the Center for further information as soon as possible.

Head for the Hill Country

continued from page 1

These tours are a perfect Mother's Day treat, or spring fling for yourself!

From Austin...

Two day wildflower expedition, leaving from Austin, to include overnight at Y.O. Hilton in Kerrville, and visit with Lady Bird Johnson at LBJ Ranch.
April 22-23. $175 per person double occupancy, $225 single occupancy.

One day wildflower expedition, leaving from Austin, to include wildflower areas at LBJ Ranch.
April 29, $65.

Two day wildflower photography expedition, leaving from Austin, to include overnight at Y.O. Hilton in Kerrville, a photography consultant, and visit with Lady Bird Johnson at LBJ Ranch.
May 13-14. $175 per person double occupancy, $225 single occupancy.

From San Antonio...

One day wildflower expedition, leaving from San Antonio, to include wildflower areas at LBJ Ranch.
May 1, $65.

Two day wildflower expedition, leaving from San Antonio, to include overnight at Y.O. Hilton in Kerrville, and visit with Lady Bird Johnson at LBJ Ranch.
May 6-7. $175 per person double occupancy, $225 single occupancy.

Please note: Tours include lunches, transportation, guide on bus, all taxes and gratuities, (also room and breakfast at Y.O. Hilton for two day trip.) Tours are not designed for children's needs.

FROM THE M·A·I·L·B·O·X

Conferences, workshops, meetings, symposia

March 11, 1986—*"Wildflower Identification Seminar"*, organized by the National Wildflower Research Center at the United Bank Conference Room, 400 West 15th Street, Austin, Texas. Contact: National Wildflower Research Center, 2600 FM 973 North, Austin, TX 78725 (512) 929-3600.

April 5, 1986—*"God's Carpet"*, a wildflower seminar organized by the Yoakum Garden Gate Club, Yoakum, Texas. For further information on seminar location contact: Garden Gate Club, c/o Chamber of Commerce, P.O. Box 591, Yoakum, TX 77995.

April 8, 1986—*"Landscaping with Nature"* at Callaway Gardens, Pine Mountain, Georgia. Co-sponsored by the National Wildflower Research Center, Callaway Gardens, Atlanta Botanic Gardens, and University of Georgia Botanic Gardens. Contact: Dr. William E. Barrick, Callaway Gardens, Pine Mountain, GA 31822-9800, (404) 663-2281.

April 17, 1986—*"Ways with Wildflowers"*, culture and conservation of the native plants of Pennsylvania at Bowman's Hill State Wildflower Preserve, Washington Crossing, Pennsylvania. Contact: Ralph F. Reitz, Bowman's Hill Wildflower Preserve Association, Inc., Washington Crossing Historic Park, Washington Crossing, PA 18977 (215) 862-2924.

April 26, 1986—*"A Design Approach for Desert Landscaping"* at the Chihuahuan Desert Arboretum and Botanical Gardens near Fort Davis, Texas. Contact: Chihuahuan Desert Research Institute, Education Director, Box 1334, Alpine, TX 78931 (915) 837-8370.

May 16, 1986—*"Wildflower Symposium"* at The Woodlands, near Houston, Texas. Practical information and discussion about wildflower and native plant projects. Contact: National Wildflower Research Center, 2600 FM 973 North, Austin, TX 78725 (512) 929-3600.

May 16-18, 1986—*"Plant Conservation Strategies: Options for the Future"* at Lakeland Community College, Mentor, Ohio. Contact: Education Department, The Holden Arboretum, 9500 Sperry Road, Mentor, OH 44060 (216) 946-4400.

May 31-June 1, 1986—*"Soil and Seeds: The Sources of Culture"*, 8th Annual Prairie Festival, at the Land Institute, Salina, Kansas. Contact: The Land Institute, Route 3, Salina, KS 67401.

November, 1986 (date TBA)—*"A California Conference on the Conservation and Management of Rare and Endangered Vascular Plants"*, calling for papers at present. Contact: The 1986 Rare Plant Conference Committee, California Native Plant Society, 909 Twelfth Street, Suite 116, Sacramento, CA 95814.

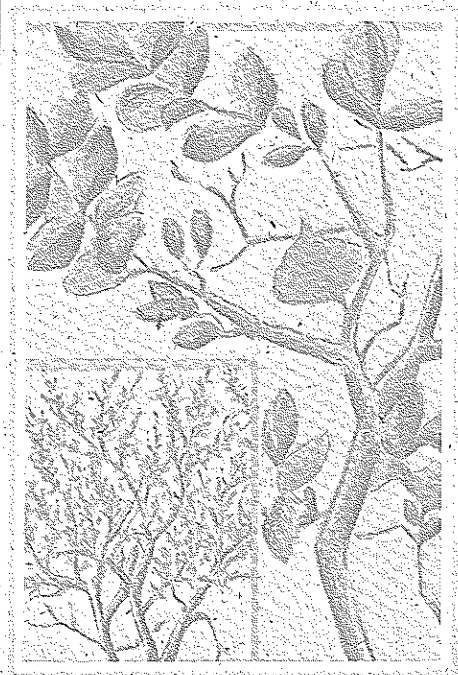
Spring Whispers Its Awakening. . .

by David Northington

One of the first trees to give us color each spring is the redbud. In March it develops small rose to pink-purplish color buds. The early flowers are highly visible because redbuds flower before, or as their first leaves bud out. Flowering stretches into April and May, but the developing leaves progressively hide the color of the later flowers.

Redbuds are deciduous trees that have a wide distribution. A member of the legume family (along with lupines, clover, and vetch to name a few), the genus *Cercis* (SUR-sis) includes about six species scattered throughout the temperate regions of North America, Asia, and Europe. One of the most widely known species is *Cercis canadensis,* which includes at least two regional varieties that differ slightly in both appearance and habitat requirements.

Cercis canadensis var. *canadensis* is known as eastern redbud. It is found in the rich, sandy soils of open woodlands, along streams, and in bottomlands from central Texas to Florida, and north from Ontario in the east and Nebraska in the west. Growing up to 40 feet tall in sunny to partly sunny locations, the eastern redbud has thin, heart-shaped leaves that are a dull greenish color on both upper and lower surfaces.



Kate McKenna

Texas redbud, *Cercis canadensis* var. *texensis*, is found in the calcareous soils of central to north-central Texas and southern Oklahoma, and west into the plains country of Texas. Its leaves are thicker and a glossy, rich, deep green color, and often have a more rounded leaf tip than the pointed apex of var. *canadensis*. The Texas redbud is more drought tolerant and better suited to poor, rocky soils.

Another popular redbud species is the western redbud, *Cercis occidentalis*. Growing up to 150 feet tall, it is used in landscaping throughout the western United States.

Cercis has been cultivated since 1641. Its species include the Judas-tree, native to Europe and Asia, from which Judas reportedly hanged himself. Historically, the flowers have been eaten fried and used in salads. A tea made from the bark has found use in the treatment of diarrhea and dysentery. Mostly, however, the redbud is valued as an attractive ornamental for landscaping.

Dr. David Northington is Executive Director of NWRC.

Those Incredible Helpers

"What can I do to help?" is a question asked frequently at the National Wildflower Research Center! Older adults, laboratory technicians, college professors, retired school teachers, landscape architects—the list is endless—all assist in a myriad of ways as volunteers.

✓ A large group, almost fifty in number, comes to the Center on either a weekly basis or as "drop-ins" when the need arises. Some help by answering mail, some clean and sort seed, others work in the fast-growing library. Those people who can only work on week-ends assist in planting the fields and acting as week-end tour guides.

✓ The University of Texas School of Communications recently gave their professional expertise to produce outstanding Public Service Announcements promoting the NWRC.

✓ Large bulk mailings are mailed out by twelve faithful RSVP senior citizens and nine Junior League members do everything from typing to potting shed work.

✓ Some volunteers live far from the Center! Wildflower "scouts" are valued volunteers collecting information in California, Wyoming, Colorado, Pennsylvania, Florida, and Ohio to name a few states. By the way, more scouts are always needed. Simply contact the Clearinghouse and you will be sent an appropriate form.

It is obvious the Center could not accomplish all that it does without its corps of volunteers!

HIGHWAYS & B·Y·W·A·Y·S

Landscaping and maintaining the large grounds required by a golf course is always costly. However, Kidwell & Hurdzan, Inc., golf course architects and consultants, have experimented with landscaping some of their golf courses with wildflowers. They are particularly pleased with the results on a course at Oglebay, in Wheeling, West Virginia. The site's blooming peak was in August of last year, and they are optimistic that this year's stand will be more beautiful.

Many readers have inquired about Portola Valley Ranch, the Californian development featured in the Fall 1985 issue of *Wildflower*, and asked about further information on conserving oak woodlands. We are pleased to acknowledge one of the references used for that article was *Oak Woodland Preservation and Land Planning: Portola Valley Ranch*, by Hardesty Associates, Landscape Architects. This book will be a useful guide in planning your conservation effort. It is available for $20.00 through: Hardesty Associates, 855 Oak Grove Avenue, Suite 205, Menlo Park, CA 94025.

B·O·O·K REVIEWS

by Annie Paulson

Growing and Propagating Wild Flowers

by Harry R. Phillips
University of North Carolina Press, 331 pp, 1985.

In recent years the demand for native plants has grown tremendously. Ten years ago, few commercial sources for native plants existed. Within this period a formidable number of native plant nurseries have begun in response to this growing market. These commercial suppliers discovered little research existed on propagating and cultivating native species. They found that working with native plants invited experimentation. Of the 25,000 species in this country, great potential benefits exist from knowledge gained through other's success and failure in determining appropriate techniques for those species with commercial value.

As the demand for native plants increased, so too did collection of wild species with commercial value. Increasing the availability of propagated species is crucial in easing the pressure that collecting in the wild has created. This concern helped establish the pioneering research program at the North Carolina Botanical Garden. This book was compiled after ten years of data was collected from this program. It is hoped that the "conservation through propagation" concept will aid the commercial suppliers, and this in turn will allow many plant populations to live without threat in their native habitats.

This book in invaluable when one considers the lack of knowledge which existed prior to its publication. It details specific propagation and cultivation requirements of 100 eastern native and naturalized species. This information should also prove helpful for growing related species in other parts of the country. The format includes: illustrations; descriptions of flower, fruit and seed; proper techniques for collecting, cleaning and storing seeds; propagation successes; cultivation requirements; potential uses in a garden or landscape; and notes about related species.

Planning tips include soil preparation, maintenance requirements, distributing your propagation activities, and designing a perennial bed or border. These fundamental gardening rules are incorporated to provide specific and much needed information about native plants.

Information about how to propagate and grow native plants is quite comprehensive and includes pre-germination techniques and step-by-step procedures for propagating native plants from seed or by asexual methods.

Proven propagation procedures for growing native plants is in great demand and crucial for a commercial grower attempting large scale production. This book is an excellent reference for practical guidance for growing native plants.

Harry R. Phillips, the author, is curator of native plants at the North Carolina Botanical Garden, at the University of North Carolina at Chapel Hill.

Annie Paulson is a resource botanist at the National Wildflower Research Center.

May we ask for Your Help?

The Center is forever grateful for the generosity of all our wildflower friends! We have had many people ask "What can I do to help? Do you need equipment that I could donate?"

So in answer to your inquiries, we are publishing some items from our needs list. However, if you have something you think we would like, and it is not on the list, just call us here at the Center to ask if we are *in need.*

Seed herbarium case; John Deere 750 tractor; front loader and shredder for JD 750; VCR video tape machine (½" VHS); two IBM correcting selectric typewriters; Apple 512K McIntosh and printer; slide storage unit; passenger van; mini-blinds for three windows; microwave for kitchen; large crock for ice tea.

Executive Director: Dr. David Northington
Associate Director: Carolyn Curtis
Editor: Mae Daniller
Art Director: Deborah Mullins

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