

# WILDFLOWER

The Newsletter of the National Wildflower Research Center Volume 4, Number 1 Spring 1987

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

## To Benefit Wildflower Center

# \$1 Million Bequest Announced

While addressing a quarterly meeting of NWRC trustees and Advisory Council members, Lady Bird Johnson announced that \$1 million in her will has been set aside for the Wildflower Center.

Mrs. Johnson noted proudly the continued growth and research expertise of the Center since its founding in December 1982 on her 70th birthday.

Bequests such as Mrs. Johnson's and others mean research and Center programs will be kept alive. This year, the research botanists continue work on ten major research projects in the Central Texas region, ranging from field test plots of commercially available mixes, to inoculation studies on regional wildflowers. Other supplemental research programs have been set up in New York, Georgia, Colorado, North Dakota, and other areas in Texas.

Mrs. Johnson's remarks followed a weekend of planning and orientation meetings for the trustees and advisory council.

## Lady Bird Johnson: On Celebrating Four Years

*I have been blessed with God's bounty and it gives me great joy to put it back into God's green earth.*

*So, in planning for the years ahead, I have stipulated in my will that one million dollars be set aside for the use of the National Wildflower Research Center.*

*Let me make my own declaration of faith in the Center right now. I believe it is significant to the future of the country.*

*I, like the Wildflower Center, have just passed another birthday—a landmark. Being 74 gives one certain rights to some firm conclusions. What the general public, as well as the professionals, are saying to us comes through loud and clear. They look to us for guidance and information. Over and over, from Washington state to Florida, we have had this kind of challenge: "We are looking to you for help in establishing wildflowers as part of our landscape."*

*For instance, two years ago, we received 2,000 inquiries through our information Clearinghouse; in 1986, we received over 21,000.*

*We have over 8,000 interested members who pay dues, with more joining each day. Through*

*members and our education program, 28,000 people receive our quarterly newsletter.*

*Many experimental plots have given us new information about conditions in which native plants, shrubs, and flowers grow best. The enthusiasm of those who follow our efforts and apply them in towns and landscapes throughout the country mounts, and the financial support has been generous and exciting. But we cannot say we are securely established yet.*

*The Center has a staff of 17, including our highly capable director, Dr. David Northington. They plant our experimental and display plots and extract information from them, process data for our Clearinghouse operation, produce the newsletter, fulfill speaking requests, and arrange tours.*

*It is hard for me to believe that four years have passed since we first gathered to launch the National Wildflower Research Center.*

*But almost instantly the effort grew like well, wildflowers... and today when I review the ties we have made throughout the country, I am gratified and convinced that we are here to stay and thrive with the growing interest of people throughout the country.*

## Spring Fun At The Center

Spring at the National Wildflower Research Center finds us working, planning, planting, touring, and hosting.

You may be assured of a myriad of wildflower activities if you mark the following dates in your diary. All are special Center activities which we hope you will attend.

**April 7—8 1987—Wildflower Days.** Two days devoted to demonstrations using wildflowers in every which way! Experts in wildflower arranging, wreathmaking, glass blowing, and porcelain will show their talents. There is a \$10 charge (\$5 for members) to attend the wildflower arranging demonstration and a \$10 charge (\$5 for members) for the wreathmaking demonstration. To make reservations call or write Nikki Kriss, NWRC, 2600 FM 973 N, Austin, TX 78725 (512) 929-3600. There will also be many unique wildflower gift items on sale. Hours will be from 10 am to 4 pm on both days.

**April 14—May 24, 1987—Annual Spring Tours of the Center.** Now is the time to put on those walking shoes and learn about research in the greenhouse and field plots at the Center. Tours will be held on Tuesdays, Wednesdays, and Thursdays from 10 am to 1 pm, and on Sundays from 12 noon to 2 pm. (Note, there will be no tours on Easter Sunday). Do drop in, Peggy Budd or one of our volunteers will be here to greet you.

**April 23—24, 1987—Native Plants: A Landscape Design Conference.** How, where,

*continued on page 2*

# Staff Retreat A Success

David Northington, Executive Director

In preparation for the January 1987 meeting of the Executive Committee of our Board of Trustees, the staff participated in a two-day retreat to evaluate what the National Wildflower Research Center is, where we have been, our future goals, accomplishments, and most importantly, how we arrived at this point. It was an exciting and revealing two days. The most commonly recurring message that came to light from every program is that our members are the critical factor in our direction, our accomplishments, and our future.

**"The National Wildflower Research Center is a non-profit organization dedicated to the conservation and use of wildflowers and native plants."** That, briefly, is our purpose for existing. There is a phenomenal public interest in wildflowers for ecological, aesthetic, and economic reasons, and our programs attempt to focus on these three areas of interest. Philosophically, we want to see a continued sensitivity to the protection of our native

*continued from page 1*

and why. This two day conference, sponsored by the Center and targeted toward landscape professionals, will cover topics ranging from landscaping private and large scale developments, to the value of conserving our limited natural resources. Detailed information will be mailed to all members in the southwestern United States and many developers, landplanners, and other professionals in March. Do call or write the Center if you desire more detailed information prior to the mailing.

**April 25, 1987—Third Annual Open House Party for NWRC Members.** An afternoon of looking, learning, and socializing with fellow wildflower lovers, staff, and trustees on the grounds of the Center. All current members will receive an invitation in April, watch out for yours in the mail! If you are not already a member, now would be the time to join, to ensure being included for this festive day.



Dr. David Northington

flora. Concurrently, we realize, that much of our country's landscape is not pristine and untouched by human activity and we are working to successfully reestablish wildflowers and native plants indigenous to their particular areas of the nation.

Although removal of introduced wildflowers that appear to have successfully naturalized is not feasible nor necessarily desirable, we strongly discourage the introduction of any new species. The possibility that they might become aggressively invasive, and displace those native species already growing wild in natural balance, is enough of a concern that it is not a worthwhile gamble. In addition, our research continues to demonstrate that indigenous wildflower species are far more successfully established and reoccur more dependably in subsequent years.

Combined with our research, the Center has developed a solid clearinghouse of information for our membership. We now have over 140 Fact Sheets, and we work

hard to continually update, improve, and expand our information about every state and vegetative province in the country. Although this will be a never-ending process of refinement, we are pleased by the numerous inquiries, over 21,000 in 1986, and many enthusiastic letters and success stories crediting the usefulness of our information.

The core of this future is the membership of the National Wildflower Research Center. In the past three years, over 8,000 people have joined at various levels of membership. Your support, whether financial, informational, educational, or emotional, has made our accomplishments possible. "Wildflower roots" support of the conservation and use of our wildflowers and native grasses, shrubs and trees is the ultimate key to that goal being attainable.

As you, our members, continue to renew and upgrade your annual membership and respond to our mailings, we will be able to better serve your interests and needs. An important way that members can help is to expand awareness of the Wildflower Center and our goals. Take an active role in your community's wildflower efforts, give NWRC gift memberships to friends on birthdays, Christmas, and other special occasions (or simply because you are a friend!), find a way to support actively wildflower conservation and use to expand awareness and enthusiasm for this nationwide cause.

## Second Annual Tour of England Scheduled For June Departure

This June, members and friends of the National Wildflower Research Center have the opportunity to join the Second Annual Tour of Wildflowers and Gardens of England. The Center feels fortunate to be sponsoring this program, which offers the unique opportunity of staying in private homes of the gentry, in addition to viewing secluded parks and gardens, many of which are not usually open to the public. Last year's tour members thought this combination made for a delightfully memorable trip.

Some of the highlights include a morning in the private garden of Sherbourne Park, a tour of Heaselands' 17 acres given by the head gardener, and a visit to the wildflower

gardens of Dr. Miriam Rothschild at Ashton Wold. In London tour members will have the privilege of staying at the Navy and Military Club on Piccadilly, as guests of Lt. Colonel Ronnie Adam.

The tour begins in London on Tuesday June 9, and stretches through Sunday June 21, with the option of spending additional days in London. The cost is \$2,124 per person, which does not include roundtrip airfare between the United States and London. Space is limited, so to ensure a place on the tour please contact Wendy Wood, National Wildflower Research Center, 2600 FM 973 N, Austin, TX 78725 (512) 929-3600.

Beth Anderson

From the precision of formal French gardens to back-to-nature yards of untouched native vegetation, gardening has come full circle, with wildflower gardens the latest trend. A more relaxed, mix-and-match attitude seems to be shifting the balance toward ecologically sympathetic gardens. And the beneficiary of this trend, whether intentionally solicited or not, is wildlife. In a world rapidly becoming fragmented into cultural landscapes, to the detriment of natural habitats, patches of wildflowers and native plants provide wildlife corridors for birds, insects, and small mammals.

Nature excels in teamwork. In Carl Sagan's words, "what a marvelous cooperative arrangement—plants and animals—each inhaling the others' exhalations, a kind of planet-wide mouth-to-stoma resuscitation." So why not take the initiative, and incorporate wildlife into your garden?



Making a garden more attractive to wildlife can be accomplished in a variety of ways. Keep

## Wildlife Gardens Designed For You And Nature's Friendliest

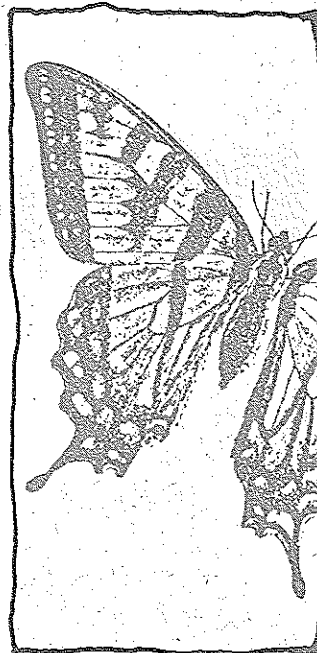
in mind, that even minor changes, like mowing less frequently, can increase the number of visitors. Nor is size a problem, the smallest of yards or porches can become mini zoos. Wildlife should enhance your garden, however, rather than be the focus. Design your garden for yourself first, then garnish it for critters. Ideally, a yard could be a combination of meadow, woods, and wetland.

The basic needs of wildlife include food, shelter, and water; a wildlife garden should include all three. The key to a good habitat is diversity. Observe birds and butterflies in the wild or on untended land to discover their preferences. Color is a major factor in attracting both. Hummingbirds prefer bright reds and oranges, butterflies like mauve and purple, while hoverflies find yellows and golds most enticing.

Feathery nectar-rich wildflowers often provide more nutritious meals than showy, but sterile cultivars. When deciding what to plant, include food sources for both seasonal (i.e. for earliest arrivals and latest departures) and developmental needs. Larval stages of insects, for instance, may feed on completely different plants, or parts thereof, than the

adults. Coarse plants like thistles and docks are good nectar sources for butterflies, and later form seedheads which attract finches and other birds. Other provisions for residential or transient wildlife include fruit, fungi, compost, pollen, and sap.

In planning shelter needs, think layering. Wildlife can have



extremely specific niches within a habitat. Different species of warblers, for example, inhabit the top, middle, and lower branches of conifers. A wooded area could include overlapping canopies of trees, shrubs, and forbs. The edges of woods, moreover, are usually rich with wildlife. For a small yard, a single tree or vines can provide shelter for nesting wrens or blackbirds as well as cover for snails and butterflies. And don't overlook what's underfoot. Mulch or compost offers a host of hiding places for insects.

Water, such as in a small pond, provides a home for amphibians and aquatic insects, a bathing facility for birds, and drinks for everyone. Much wildlife activity will occur around water. Migrants especially will find your aquatic "service station" quite convenient. On the smallest scale,

even a bird bath is a valuable addition.

Once you allow wildlife into your garden, you should allow nature to rule a little more. Chris Baines, an innovative British landscaper, notes "... the secret of a successful wildlife garden depends on understanding the way in which your various gardening activities will distort the balance." In other words, one must minimize disturbance and refrain especially from using chemicals. Give your garden more autonomy, which leaves you plenty of time to observe, enjoy, and learn from your creation.

For specifics on creating a wildlife garden, refer to the following:

Baines, Chris, 1985, *How to Make a Wildlife Garden*, Elm Tree Books, London.

Damrosch, Barbara, 1982, *Theme Gardens*, Workman Pub. Co.



Rothschild, Miriam and Clive Farrell, 1983, *The Butterfly Gardener*, Michael Joseph Ltd./Rainbird.

Wasowski, Sally & Julie Ryan, 1985, *Landscaping with Native Texas Plants*, Texas Monthly Press.

Beth Anderson works in the membership program at the National Wildflower Research Center. She has a master's degree in botany.

# Ongoing Research

## At The Center

In the fall of 1986 the research botanists at the Center spent countless hours planning and planting for several areas of ongoing research. The techniques and strategies being developed at the Center will serve as a prototype for wildflower research across the country.

Look for information on the projects listed below in future editions of *Wildflower*. In addition you will be brought indepth research reports in the new journal, *Wildflower Report*, to be published by the Center this year. All current members will receive a subscription to this new journal.

**Field test plots.** To evaluate commercially available seed mixes to determine which wildflower species work best in different regions.

**Evaluation of seeding techniques.** To study different planting techniques for a variety of species.

**Specific focused research on ten wildflower species.** To better understand germination, establishment requirements, and flower periods of selected species by planting varying densities of seed.

**Management techniques for optimum long-range wildflower success.** To determine optimum mowing frequency and timing, weed control, and irrigation.

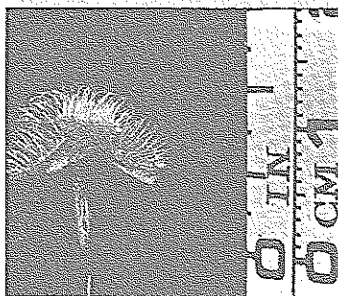
**Seedling identification research.** To enable professionals and lay people working with wildflowers to identify wildflowers through a series of photographs. Fifty species are photographed from cotyledon stage through blooming stage.

**Staggered planting project.** To determine optimum planting time by planting four species at two-week intervals from October 1986 through August 1987.

**Ground preparation treatment study.** To compare large scale ground preparation methods using several wildflower species.

**Bluebonnet seed treatment study.** To test and compare the various scarification methods now being practiced for bluebonnet seeds and to evaluate the use of *Rhizobium* inoculents for improved seedling establishment and growth.

**Seed collecting, seed storage, flower identification and germination studies.** To collect, identify, and propagate wildflower species not currently available commercially.



### Supplemental Research Regions

In cooperation with the Center and its goals, wildflower field test plots studying a variety of subjects have been established across the nation at universities and botanical gardens. A few of the participating facilities are: Farmingdale University in New York, Clark Garden in New York, Atlanta Botanic Gardens in Georgia, Callaway Gardens in Georgia, Denver Botanic Gardens in Colorado, the University of North Dakota, and projects across Texas. Plans call for other projects in California, Arizona, South Carolina, and Minnesota. ☸

### HIGHWAYS & B·Y·W·A·Y·S

At the North Shore Country Club in Glenview, Illinois, Dan Dinelli has been landscaping the areas surrounding the club's golf course with wildflowers since 1983. Mr. Dinelli specifically picked sites which could be

viewed from more than one hole.

After marking pleasing contours for his plots, he chose wildflower mixes which contained predominantly perennials to provide continuous periods of bloom. Once the wildflowers were established he realized there was no need for concern about certain species invading the nearby putting greens. It just does not happen.

What did occur was a proliferation of photographs that were taken of these spectacular wildflower sites, outweighed those taken of the prestigious 18th green!

Says Mr. Dinelli, "I realize a golf course superintendent's first priority is providing the best playing conditions for the game of golf. I believe a close second is to create a diverse, exciting environment, which will provide interest and enjoyment of the outdoors." In this case wildflowers add brilliant, yet harmonious color to that graceful setting.

## Hornsby Bend History

Beth Anderson

Driving up the half mile to the National Wildflower Research Center buildings, one can almost see growth in progress—in the brightly flagged stakes marking the research plots, in the tiny seedlings pushing their way above ground, in the increasing number of cars in the parking lot, in the bustle of volunteers arriving and leaving.

Yet long before the creation of the Center, the area itself was alive with activity. Historically, it was a site of violent struggles between both people and nature. Prior to the arrival of immigrants from Europe and the eastern United States, the Comanche lived and hunted on the land. Later, the strife between the Native Americans and settlers caused bloodshed for many years.

Geographically, the Center is located on the Hornsby Bend section of the Colorado River, about

nine miles east or downstream of present day Austin. Though today the river is benevolently calm due to dams built upstream, one hundred and fifty years ago it ruled tyrannously.

In July of 1869, the Colorado reached the highest point in history, engulfing the Bend area in 42 feet of water!

The first settler to claim land on the Center site was Reuben Hornsby, in 1832. He and his wife Sarah came from Vicksburg, Mississippi. As history relates, while Hornsby and a surveying party were exploring this horseshoe bend of the Colorado, he proclaimed, "This suits me just fine," and promptly began a homestead on the spot.

Together he and Sarah had ten children, only three of whom survived to marry and populate the area. One of the Center's dedicated volunteers, Patricia Hornsby, is married to Hugh Hornsby, a sixth generation descendent of Reuben and Sarah Hornsby.

To the early settlers, the Colorado River provided water and transportation, as well as a place for domestic and social gatherings. The Bend area became rather famous for its political rallies. Periodic barbecues brought together candidates and voters alike, sometimes upwards of 6,000, to "chew the beef."

The first school and church was built in 1847, a few miles downstream from Blue Bluff, and survived three floods before finally being converted into a silo in about 1912. Some of the homes of Hornsby descendents and other early residents, such as the Fosters and Callahans, still stand. These buildings serve as proud reminders of the valor and endurance of Hornsby Bend settlers. ☸

Beth Anderson works in the membership program at the National Wildflower Research Center.

Pam Jones

Long a standard in north-eastern woodland gardens, Trilliums are one of the most popular eastern wildflowers. Members of the lily family, their three petaled blooms are amongst the first wildflowers to appear in early spring. Perhaps the most familiar species is the Great White Trillium, *Trillium grandiflorum*, a native of the eastern United

States. Different species can be found in deciduous and evergreen forests across the country, with over a dozen of the most widely cultivated varieties found east of the Mississippi.

These woodland plants are not difficult to grow but they have specific habitat requirements. In general they are shade loving and prefer rich, moist, humus-filled soils that are neutral to slightly acidic. Special care must be given

# Early Trilliums An Eastern Favorite

easily divided and transplanted any time of year, though they prefer late summer and early fall when they are dormant. Be sure to handle the plants with care and take plenty of soil with the root ball. These woodland plants may not survive a move to a new location if there is a substantial change in soil conditions.

For the more serious gardener, they may be increased by a technique called scoring, which involves wounding the rhizome or tuber to induce the growth of new bulblets. Do this by taking up a rhizome after it has gone dormant in the fall and cutting a shallow groove around it just below the new season's growth. To prevent fungal infection, dust it with a fungicide and then replant. Take up the clump again the next fall and remove the bulblets that have formed along the wound. Plant these immediately and expect flowering plants in one to two years.


to propagating new plants in habitats similar to those of their parent plants. Once established they will be hardy and permanent garden additions which reseed readily with time.

Trilliums may be grown easily from seed, though be prepared to wait up to seven years for seed-grown plants to mature to flowering. Seed must be sown while fresh, immediately after late summer harvesting. Dry seeds may take years to germinate. They have a double dormancy, which means that if sown in the ground or cold frame in the fall they must experience two winters before they germinate.

To speed this dormancy breaking process, seeds may be chilled or stratified in a refrigerator. To do this, mix the seed with a moist medium, such as sand or peat, in a Ziplock bag. Store the bag in a refrigerator, not freezer, for two to three months. Remove the bag to a dark location at room temperature for six to eight weeks and then return to the refrigerator again for two to three months. Sow the stratified seed in early spring and be patient. Trilliums will spend one to two years as seedlings and then flower in the third to fifth, or sometimes even seventh year.

If you are not prepared to wait that long to enjoy their delicate blooms, established trilliums are

available commercially, though there is concern among plant conservationists that much of the available nursery stock is field harvested, rather than propagated. Not only do plants collected in the wild rarely survive the move to a domestic garden, but field collection poses a serious threat to native populations. Therefore, we strongly encourage gardeners to grow trilliums from seed or plants collected from established gardens, rather than from the wild and to look for nurseries that propagate their stock.

Regional lists of nurseries that propagate native plants are available on request through the Center's Clearinghouse. 

Pam Jones is a research botanist at the National Wildflower Research Center.

## Honoring Others Through Center Tribute Program

The National Wildflower Research Center Tribute Program allows you to honor a loved one on a birthday, give good cheer to a friend who is ill, wish a couple happy anniversary, or send a memorial. We will notify the honoree, or family in the case of a memorial, of your gift and include

a suitable message. You will receive a prompt acknowledgement and the satisfaction of knowing you have helped spread your interest in wildflowers.

Please keep this form for an appropriate occasion. We can mail you any additional copies you require.

### National Wildflower Research Center Tribute Program

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## FROM THE MAILBOX

**March 21, 1987**—*Designing with Native Plants*, A Symposium at the U.S. National Arboretum Washington, DC. Examination of gardening with native plants.

**Contact:** Designing with Native Plants, U.S. National Arboretum, 3501 New York Avenue, N.E., Washington, DC 20002 (202) 475-4857.

**March 24, 1987**—*More Wildflowers for Michigan*, at Michigan State University, East Lansing, Michigan. Planting wildflowers for conservation in private and public places.

**Contact:** Michigan State University, Department of Park and Recreation Resources, 131 Natural Resources Boulevard, East Lansing, MI 48824.

**April 4, 1987**—*Growing Wildflowers for all Seasons*, at Garden in the Woods, Framingham, Massachusetts. Learning to attract wildlife to your wildflower garden, select native trees, form garden borders.

**Contact:** Frances Clark, New England Wildflower Society, Garden in the Woods, Hemenway Road, Framingham, MA 01701 (617) 877-7630.

**April 15--18, 1987**—*Native Plant Revegetation Symposium*, Handeii Hotel, San Diego, California. Information exchange on using natives in revegetation and landscaping projects.

**Contact:** Native Plant Revegetation Symposium, 3808 Rosecrans Street #373, San Diego, CA 92110.

**April 23--24, 1987**—*Native Plants: A Landscape Design Conference: How, where, and why in Austin, Texas*. Focus on using

natives to enhance and beautify our landscapes. Sponsored by the National Wildflower Research Center.

**Contact:** National Wildflower Research Center, 2600 FM 973 N, Austin, TX 78725 (512) 929-3600.

**May 15--17, 1987**—*Annual Meeting of the Florida Native Plant Society in Lakeland, Florida*. Panel discussions on using wildflowers in Florida landscapes.

**Contact:** Bob Craig, Florida Native Plant Society, 525 SW 41st Street, Gainesville, FL 32607.

**May 22--23, 1987**—*Advances in Plant Systematics and Ecology at the Rancho Santa Ana Botanic Garden, Claremont, California*. Third Annual symposium aimed at systematic botanists in the southwestern U.S.

**Contact:** Rancho Santa Ana Botanic Gar-

den, Botanical Systematics Symposium, 1500 North College Avenue, Claremont, CA 91711 (714) 625-8767.

**June 18--19, 1987**—*Southwestern Native Plants Symposium, Albuquerque, New Mexico*. Examination of current research and development of native plants of the southwest.

**Contact:** Lisa Johnston, Southwest Native Plant Symposium, NPS-NM, P.O. Box 934, Los Lunas, NM 87031 (505) 865-5608.

**Executive Director:** Dr. David Northington  
**Associate Director:** Carolyn Curtis  
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# On Becoming A NWRC Member

Your membership donation is tax deductible to the extent allowed under Federal and State laws. For information concerning the benefits of each level of membership, please contact the Center. Return to: Membership, National Wildflower Research Center, 2600 FM 973 North, Austin, TX 78725.

- \$25 Supporting Member
- \$250 Center Sponsor

- \$50 Sustaining Member
- \$500 Trust Member

- \$100 Key Member
- \$1000 Benefactor

Please make your check or money order payable to "NWRC."

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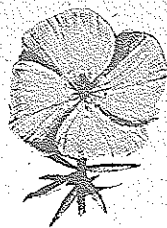
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## Wildflowers Work!

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