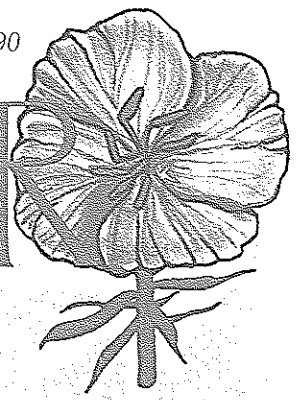


# WILDFLOWER



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

## RESEARCH U.P.D.A.T.E

Researchers at the National Wildflower Research Center are studying wildflowers from five biogeographic regions of North America: Northeast, Southeast, Midwest, Rocky Mountains, and Southwest. The research will determine germination rates for individual species and the length of time needed for germination.

The research is part of the Center's Wildflower Inventory project, which is examining hardy and colorful wildflowers that can be used in landscapes in their individual regions. Members donated more than \$15,000 for the project during a special appeal in 1988.

Wildflower Center researchers now are studying samples from the Rocky Mountain region.

Rocky Mountain species included in the study are *Achillea millefolium* (piper common yarrow), *Artemisia frigida* (fringed sagewort), *Aster ascendens* (long-leaved aster), *Echinacea angustifolia* (pale purple coneflower), *Erigeron pumilus* (low fleabane), *Gaillardia aristata* (blanket flower), *Helianthus pumilus* (sunflower), *Heterotheca fulcrata* (mountain goldenaster), *Liatris punctata* (dotted gayfeather), *Machaeranthera canescens* (hoary tansyaster), *Ratibida columnifera* (upright prairie coneflower), *Solidago missouriensis* (prairie goldenrod) and *Tetradymia canescens* (spineless horse-brush).

Other species included are *Cleome serrulata* (Rocky Mountain beeplant), *Dalea candida* (white prairieclover), *Lupinus argenteus* (silvery lupine), *Linum lewisii* (blue flax), *Sphaeralcea coccinea* (red false mallow), *Oenothera pallida* (pale evening primrose), *Argemone hispida* (hairy prickly poppy), and *Eriogonum jamesii* (James wild-buckwheat).

## Wild-Collecting Endangers Natives

What do the majestic, human-like *Cereus giganteus* (saguaro cacti) growing in the Arizona desert and the small, delicate *Cypripedium acaule* (pink lady's slipper) growing in the moist woods of the northeast United States have in common? Both are native plants whose survival is at risk because of the great demand for their use in landscapes and wildflower gardens. Both species are over-collected in the wild by humans.

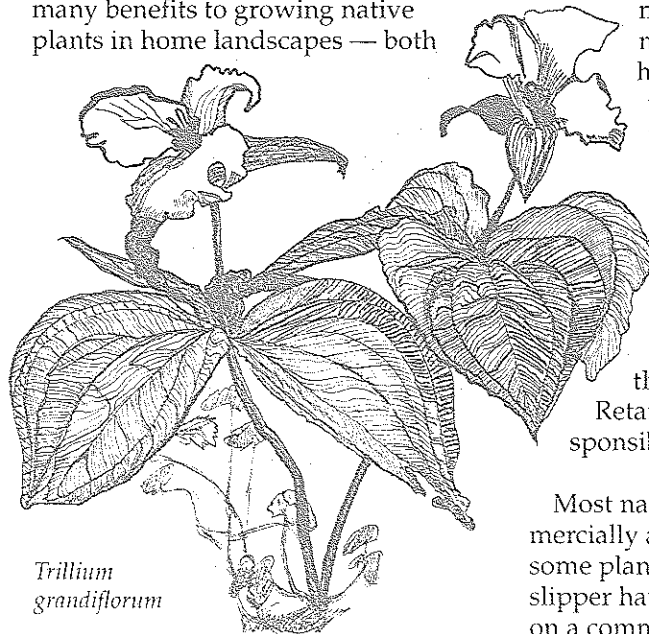
As awareness and appreciation of our native flora increases, the desire to grow these species in our own gardens naturally increases as well. There are many benefits to growing native plants in home landscapes — both

A wild-collected plant is one grown by nature and dug up by humans. Nurseries and mail-order businesses often do not state the origin of plants as "propagated" or "not wild-collected." Some suppliers might claim their plants are "nursery-grown" when, actually, plants have been dug from the wild and put in containers for a short period. The suppliers did not actually propagate the plants. Not all claims of "nursery-grown" are false, but the label does not automatically ensure that plants were propagated.

Consumers should ask about the method of propagation. If nurseries cannot explain how plants were propagated, they are probably dug from the wild. Retail outlets that purchase their plants from others may claim they do not know the plants' origins. Pressure these outlets to discover those origins: Do not purchase plants until it is certain they are not wild-collected.

Retail outlets must be held responsible for what they sell.

Most native plants available commercially are propagated. However, some plants such as the pink lady's slipper have never been propagated on a commercial scale. All *C. acaule*, pink lady's slipper, plants for sale are wild-collected. According to a *Garden* magazine article by Faith T. Campbell of the Natural Resources Defense Council, as many as 100,000 plants were wild-collected and sold by one supplier in one year. Sadly, this species rarely survives being dug and transplanted. Another species commonly wild-collected and sold is



*Trillium grandiflorum*

to those who grow them and to the environment — and the Wildflower Center encourages their use in planned landscapes. But it is *extremely* important to ensure that plants purchased for landscaping and gardening are **propagated** and not **dug** from the wild.

A **propagated** plant is one grown from seed or vegetatively by humans.

(read on, page 2)

## We Must Erase Misconceptions About Native Plants

Public enthusiasm for wildflowers in planned landscapes is widespread and rapidly growing. Some people are more interested in environmental benefits, others in the potential for economic savings; but everyone enjoys the color and aesthetic qualities that wildflowers provide. As with anything that catches the public eye, however, there can be false assumptions and misconceptions.

General misconceptions still exist in several areas, including the potential for native shrubs and trees in landscaped areas. Many people still believe that native shrubs and trees are rough, scrubby, and unattractive. There are two primary reasons for these opinions and the resulting resistance to using native shrubs and trees.

Many people, consciously or unconsciously, associate these plants' native settings when they consider planting a native shrub or tree. Because most native shrubs and trees are seen only in their natural habitats — and those are normally wild, dense ("overgrown"), and uncontrolled — this is a natural and understandable mental image.

While a naturalistic design is certainly a viable option, the use of native shrubs and trees is not restricted to this format. A complete range of design options exists, from completely natural to very formal and controlled and, most importantly, endless variations in between. The problem is knowing what potential a native shrub or tree might have in a more formal setting; how will it look individually or in spaced groupings, how does it respond to pruning, and how fast does it grow in such settings?

Seeing native plants in botanic gardens, arboreta, nature centers, public parks, nurseries, and other public areas would give people a better idea of how the plants could be used in landscapes — and dispel the idea that native plants can only look "wild."

More research is needed on how to propagate, containerize, establish, prune, and manage native plants for landscape use. More native species should be screened for their potential as landscape ornamentals, because native species that have been developed into available nursery-grown stock often become more popular and highly regarded than the "standards." Shrubs and trees native to a given

region of the country also provide a regional identity, a less homogeneous look than one gets from constantly using the relatively small list of popular ornamentals such as boxwood, photinia, holly juniper, euonymus, and ligustrum.

A second misconception is that to have either flower or leaf color, one is limited to the exotics. Just as with growth form, there are many native shrubs and trees with colorful, showy flowers or fall leaf color, as well as evergreen species and those with colorful winter berries. Again, the native shrubs and trees in each region of the country should be evaluated for their aesthetic qualities and cultural requirements.

When all benefits are considered, propagated native plants provide long-term economic savings,

(read on, back page)



David K. Northington, Ph.D., is Executive Director of the National Wildflower Research Center.

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### Wild-collecting, cont. from page 1

*Trillium grandiflorum*. This plant takes five to seven years to flower when grown from seed. Consequently, few nurseries can afford to grow it, yet many offer it for sale.

The demand for the giant saguaro cactus in commercial and home landscapes in the Southwest is resulting in hundreds of plants being dug from



the wild. Saguaro are so slow-growing they obviously are dug and not propagated. A specimen only 4 inches tall may be 8 to 25 years old; a saguaro 15 feet tall could be anywhere from 60 to 100 years old.

As native plant lovers, we must not allow the plants we love to disappear from the wild because of wild-collecting. Please take note of which plants you buy, and demand to know their origins! For a list of sources of propagated native plants for your area, write the Wildflower Center Clearinghouse at the address listed on the back page. If you are not a member of the Center, please enclose a self-addressed mailing label and \$2 for postage and handling.

Elinor Crank  
Wildflower Center Research Horticulturist

# Maryland Wildflower Project Rooted in History

Pamela Baldwin loves wildflowers, and wanted to share their historical and aesthetic wealth with others in her community of Calvert County, Md. But planting large areas of the roadsides with pretty, native flowers would be more expensive than aesthetics and history could warrant.

So, armed with statistics that emphasized the economic benefits of roadside wildflower plantings, Baldwin persuaded the Calvert County commissioners to support wildflower plantings in their jurisdiction. In turn, the commissioners convinced the governor to make Calvert County's Scenic Route 4 the site of the state highway department's first large-scale roadside wildflower planting. The selected site is about 50 miles from Washington, D.C.

Because of the county's rich heritage, Baldwin and others were anxious to use wildflowers that are native to the area or were early colonial escapees. A remarkable set of documents helped them achieve this goal.

Some of the earliest botanical collections made in North America were

done in Calvert County by the Rev. Hugh Jones, rector of Port Republic's Christ Church from 1696 to 1702. A naturalist, Jones had sent many plant specimens back to England, where they are stored in the British Museum.

Botanists at the University of Maryland have catalogued the Jones and other early collections, so project leaders were able to determine whether the wildflowers they planned to plant actually were in the county in 1700.

"It was just extraordinary luck," Baldwin says. "Who would have ever thought that the first collections ever done in the country were done in Calvert County?"

County and state officials expect to reap many economic benefits from the wildflower plantings, ranging from decreased highway maintenance to

increased tourism activity along wildflower routes. Baldwin is now developing a brochure — describing the plants, their history, and other points of interest near Scenic Route 4 — for tourists and others interested in the wildflower planting.

The state is planting approximately 15 acres of wildflowers along roads in Calvert County. State funds for this project are limited. But the highway department has agreed to plant whatever additional seed the county is able to purchase with community donations, which Baldwin hopes will be generous.

The project will take about two years to phase in, Baldwin estimates, and she's hoping that once the first plantings start showing their glorious colors that community enthusiasm for the program will blossom.

## WILDFLOWER CENTER NEWS

The Wildflower Center will receive a **\$50,000 donation** from S.C. Johnson and Son, Inc. in 1990. The firm, which produces Glade Potpourri products, will feature the Center in a color coupon inserted in major newspapers this fall. The Center will receive a donation for every coupon returned, with \$50,000 guaranteed.

The City of Austin, Texas, awarded the Center an **Environmental Achievement Award** in April for its program to educate the public about the importance of native plants to our environment.

**Lady Bird Johnson** and the Center donated a live oak sapling grown from an LBJ Ranch live oak to the City of Austin in April.

**Katy McKinney**, former Center research botanist, presented a paper entitled "Restoring Mixed Grass Prairie in a Cultivated Field" during the annual meeting of the Society for Ecological Restoration in May in Chicago. The paper described the Center's grassland restoration project at a

county park in Central Texas. Center botanist Beth Anderson also attended the conference.

**Southwest Texas State University** and the Center are cooperatively studying the germination and growth of *Agalinis* and its relationship with buffalo grass.

International media have taken an interest in the Center recently. A Soviet reporter from **Radio Free Europe** interviewed Center Research Horticulturist Elinor Crank when she represented the Center at the New York Flower Show in March. A Japanese journalist and photographer visited the Center in March to write a story for **The Yomiuri Shimbun** newspaper, which has a circulation of nine million in Osaka.

Thousands of wildflower enthusiasts called the Center's **Wildflower Hotline** this spring to find out where in Texas they could see the best roadside wildflowers. The Center offers the hotline each spring.

### See the Beautiful and Unusual!

Enjoy the wine country of California, the splendor of Hawaii, or the mystery of New Zealand through Wildflower and Naturalist tours sponsored by the Wildflower Center and SelecTours.

**Sonoma, California**  
September 1990

**Hawaii**  
October 1990

**New Zealand**  
November 1990

**Baja (California) Whale Search and Exploration**  
February 1991

**Costa Rica**  
March 1991

For more information — or for reservations — call SelecTours at 1-800-759-7727.

# Information Thrives in Clearinghouse Habitat

One of the least visible, but easily one of the busiest behind-the-scenes departments at the Wildflower Center is the Clearinghouse. Through the Clearinghouse, resource botanists compile and disseminate information on native plants and work with individuals and groups to build a nationwide wildflower information network. The Clearinghouse holds the Center's resource materials, including a reference library, slide collection, archives, and a database of information on native plant nurseries, seed companies, and other native plant and conservation organizations.

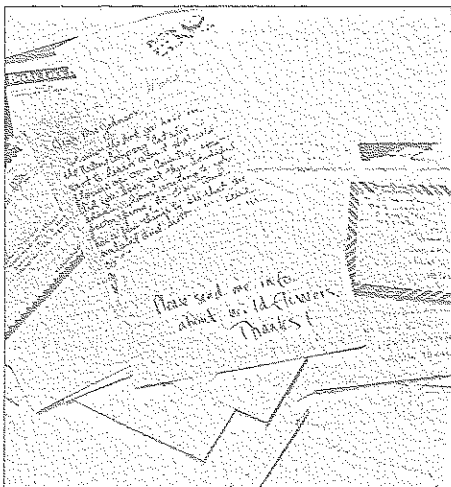
Though small, the library contains a comprehensive selection of books on native flora of North America, native plant propagation and landscaping, ecological restoration, and other related topics. While it is not a lending library, members are welcome to use the references in-house. (Please call ahead and make an appointment to visit the library.)



The Center's volunteers open, record, and answer the Clearinghouse's mail.

Begun in 1984, the slide collection has grown to include some 10,000 images. The majority of the collection is botanical slides of individual species. The remainder of the collection includes images of regional landscapes and examples of native plants in home and commercial landscapes, roadsides, parks, and restoration projects.

All the slides have been donated by members and friends of the Center. The slides are used primarily by staff for programs and publications. (If you wish to donate slides, please contact Resource Botanist Beth Anderson.



Resource Botanist Beth Anderson and Center volunteer Margery Ogden discuss the large volume of mail that comes to the Center each day. The Clearinghouse has processed more than 4,000 inquiries so far this year.

Slides showing examples of native plants in planned landscapes are particularly helpful.)

Through a grant from the Garden Writers of America, the staff has created several regional slide programs for loan or purchase. The programs include "Wildflowers of Eastern Woodlands," "Wildflowers of Southwestern Deserts," "Prairie Wildflowers," and "Spring Wildflowers of Central Texas." Each contains 35 to 40 slides of common wildflowers, plus a list of the wildflowers' common and

scientific names, bloom periods, and brief description of their habitat types. To order or get more details, call or write to the Clearinghouse.

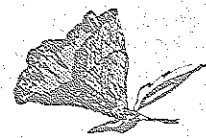
Most of the activity in the Clearinghouse — especially in the spring — centers on answering voluminous amounts of mail. (The Center still is receiving hundreds of letters a week as a result of an article in the April/May issue of *National Wildlife*.) To respond to the most commonly asked questions "Where can I get seed?" and "What should I plant?," Center botanists have developed native plant and seed source lists for each state.

This information, gathered through a survey system initiated several years ago and updated regularly, is entered into a database. Similarly, data on native plant and conservation organizations is compiled into lists. The Clearinghouse also makes available lists of recommended native plant species for each state and "fact sheets" addressing a variety of topics such as wildflower meadow gardening, prairie recreation, and roadside planting. This information is free to members: just send a self-addressed mailing label. (Non-members are asked to include \$2 for postage and handling.)

Beth Anderson  
Wildflower Center Resource Botanist



## From the Field



**Crested Butte Wildflower Festival, July 4-8, Crested Butte, Colo.** Workshops and special events centered on mountain and valley wildflowers. **Contact:** Crested Butte Wildflower Festival, c/o Chamber of Commerce, P.O. Box 1288, Crested Butte, Colo. 81224, 1-800-545-4505.

**Wildflower Photography Workshop, July 19, 20, and 22, Denver Botanic Gardens.** Lecture and workshop on photography, taught by John D. Smithers and sponsored by the National Wildflower Research Center and Eastman Kodak. **Contact:** (303) 331-4000.

**Twelfth North American Prairie Conference, Aug. 5-9, Cedar Falls, Iowa.**

Conference theme is "Recapturing a Vanishing Heritage." **Contact:** Daryl D. Smith, 2759 McCollum Science Hall, University of Northern Iowa, Cedar Falls, Iowa 50614, (319) 273-2238.

**Eastern Native Plant Alliance Annual Meeting, Aug. 17-19, The Holden Arboretum, Mentor, Ohio.** **Contact:** Barbara Pryor, New England Wildflower Society, Garden in the Woods, Hemenway Road, Framingham, Mass. 01701, (617) 877-7630.

**National Roadside Vegetation Management Association Conference, Sept. 25-28, Albuquerque, N.M.** **Contact:** (302) 655-9993.

# Naturalistic Landscaping Forces Ordinance Changes

The town names of Sun Prairie, Meadowbrook, and Prairie City evoke memories of a bygone landscape, when tallgrasses waved in the wind and colorful wildflowers added accents to a landscape that seemed to stretch forever.

The original landscape of these towns may be lost, but not forever, if a few adventurous gardeners have any say. Across the country, individuals are bringing wildflowers and native grasses back into their yards, challenging traditional styles of landscaping. Unfortunately, some of them are facing public hearings and court battles.

City officials across the country are confronting the difficult task of revising weed ordinances to accommodate naturalistic landscapes. Most weed ordinances limit plants to a 12-inch height, but many popular wildflowers and native grasses exceed that restriction.

Weed ordinances are designed to protect citizens from the adverse health and safety effects of neglected properties, by forcing property owners to cut plants that are taller than 12 inches. But those ordinances don't always allow for the more deliberate approach to land management called "meadow gardening," "pocket prairies," or "natural landscaping," a popular al-

ternative to mowing turf and spraying chemicals.

The weed ordinance in Madison, Wisc., was challenged in the mid-1970s. City officials were persuaded to amend the original ordinance, which had required that grasses be no higher than eight inches.

Under the present Madison law, landscapers planning a naturalistic design must apply for a city permit and submit their landscape plan. Landowners within a 200-foot radius of the property are sent notices about the planned naturalistic landscaping. Neighbors can agree or disagree with the plan at that time. Although some have protested, city officials have never rejected or rescinded a naturalistic design permit.

Approximately 20 naturalized lawns are registered in Madison, including prairie areas with grasses exceeding eight inches tall. Madison officials have observed that in many cases, these yards are more carefully tended than some "manicured" lawns.

Naturalistic landscapes often are a question of aesthetics. To the untrained eye, they look wild and appear to be a health hazard.

Stewart McKenzie, an environmental advisor to the Montgomery County Council in Rockville, Md., worked for

three years to change that county's weed ordinance. McKenzie worked with Walter and Nancy Stewart, home owners who decided to turn six of their seven acres of land into a natural meadow. Faced with a county order to cut their meadow, the Stewarts challenged the ordinance that limited lawn height to 12 inches. McKenzie and the Stewarts argued the ordinance was unconstitutional because it was based on aesthetics — which they claimed cannot be regulated. They also argued that pesticides used on conventional lawns posed more health risks than a wildflower meadow. Because of the challenge, the county ordinance was changed.

Each challenge to existing weed ordinances with height restrictions requires an education process. In most cases, once it has been shown that these plants are not weeds but are, in fact, a desirable, viable, and valued part of the urban landscape, all parties involved develop a better understanding of wildflowers and native grasses.

Individuals working to change the weed ordinances may face several years of frustration, but in the end, win or lose, you have made a difference.

Annie Paulson Gillespie  
Wildflower Center Resource Botanist

## Read Up So You'll Be Ready

# Start Planning Now to Plant Natives This Fall!

Fall's cooler temperatures and more abundant rainfall make it a perfect time to plant native trees, shrubs, and wildflower seed in many regions.

The following books, available through the Wildflower Center's products division, can help you make fall planting plans. To order, please use the form on the back page.

**Landscaping with Native Plants in the Middle Atlantic Region.** Elizabeth N. duPont. From southern Connecticut to northern North Carolina and from the coastal region to the Appalachian foothills. 72 p. Paperback. \$9.95.

**Gardening with Native Plants of the Pacific Northwest.** Arthur R. Kruckeberg. Guidebook for all who garden with Northwest native plants. 264 p. Paperback. \$22.50.

**Growing and Propagating Wildflowers.** Harry Phillips. Complete treatment of wildflower propagation and cultivation. 331 p., 260 illustrations. Paperback. \$14.95.

**Landscaping with Wildflowers and Native Plants.** Ortho Books. How to design and create prairies, meadows, alpine or desert gardens in your backyard. 96 p. Paperback. \$6.95.

**Southwest Landscaping with Native Plants.** Judith Phillips. Tips for designing for low maintenance using arid-land native plants. Includes sample designs. 142 p. Paperback. \$17.95.

**Wildflower Handbook.** National Wildflower Research Center. Includes 50-state directory of places to purchase native plants. 337 p. Paperback. \$9.95.

**Wildflower Meadow Book.** Laura C. Martin. Comprehensive guide covering all aspects of gardening with native plants. 303 p., 102 illustrations. Paperback. \$12.95. (This book not available until Sept. 1.)



*Director's Report, cont. from page 2*

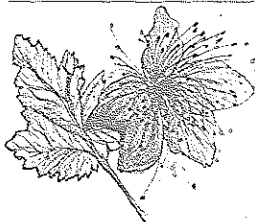
contribute balance to the ecosystem, and provide new design options for color, texture, and growth forms. The traditional ornamental exotics offer only aesthetics — which have been rendered invalid by the national homogeneity of our predictable planned landscapes.

Regardless of their true potential, the concept of using native shrubs and trees in our landscapes has not yet been accepted widely because of misconceptions about their looks. Those of us who know better can help by asking for native plants and using them when they become available, providing impetus for the industry and new sources of design experience (knowledge) to draw upon. One person, one plant at a time, we can make a difference!

### Fall's Coming: Plan to Plant Natives!

Use this form to order any of the books on page 5. Make your check payable to NWRC and mail with form to: NWRC Book Orders, 2600 FM 973 North, Austin, TX 78725-4201. Or call (512) 929-3600, from 9 a.m. to 4 p.m. Central Time weekdays, for credit card orders only.

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### Go Wild: Join the National Wildflower Research Center!

Members of the National Wildflower Research Center support wildflower and other native plant work across the nation. Benefits include *Wildflower*, the newsletter and *Wildflower*, the journal; 10% discount on unique Center products such as wildflower books, calendars, and T-shirts; advance notice on tours and discounts to Center seminars; free wildflower information from the Center's Clearinghouse; a membership card; and other benefits.

- \$25 Supporting Member. All benefits listed above.
- \$50 Sustaining Member. All the above plus a set of specially commissioned wildflower note cards.
- \$100 Key Member. All the above plus wildflower garden apron and invitations to special events.
- \$250 Center Sponsor. All the above plus wildflower poster.
- \$500 Trust Member and \$1000 Benefactor. All the above plus special privileges.

\* Thank you! Your contribution is partially tax deductible. Contact the Development Office for detailed information on tax-deductibility.

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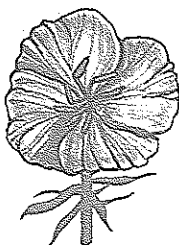
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