



# NATIONAL WILDFLOWER RESEARCH CENTER

# Wildflower

January/February 1996

Volume 13, Number 1

## Resolve to Help Your Gardens

Denise D. Delaney  
Gardens Manager/Sr. Horticulturist

"Good planets are hard to find" is the slogan on a current bumper sticker that has become a favorite of mine. It makes me think about what little things, and not so little things, we can do to show our appreciation for the natural world, and actions we can take to help restore some of our native habitats. Since it's resolution time, why not throw a few in for your local planet? Here are suggestions to get you started:

### WATER IS LIFE ... SAVE EVERY DROP

- ☞ Find out where your drinking water supply originates and what you can do to protect it.
- ☞ Avoid using pesticides, which can pollute groundwater supplies.
- ☞ Water your landscape only when needed, not on an automatic schedule.
- ☞ Use native plants acclimated to your region's rainfall, temperature, and soil.

### UNDERSTAND YOUR REGION

- ☞ Buy an identification guide for native plants of your region and start a checklist of those you see growing in the wild or being cultivated.
- ☞ Replace any plant that dies with an appropriate, propagated native species.
- ☞ Protect trees during construction.

### USE TURFGRASS IN A NEW WAY

- ☞ Modify your lawn mower to a mulching mower and raise its cutting height. Leave clippings on the lawn and use them as mulch or compost them.
- ☞ Rebel against the "industrial lawn" and adopt the "freedom lawn" style -- let anything grow as long as you can still mow it; plant some low-growing perennials to enhance diversity.
- ☞ Replace non-native turfgrasses with indigenous grasses.
- ☞ Reduce the square footage of your turfgrass lawn and plant native species that will attract wildlife.

*read on page 5*

## To Prune or Not to Prune ... Now There's a Question!

F.M. Oxley  
Education Programs Manager/Sr. Botanist

Well, you've finally done it! You've taken the plunge and planted several native tree species in your yard. But what's next? How do you take care of them?

Contrary to popular belief, native species, like their non-native counterparts, require a little TLC to thrive. Pruning at the appropriate time is one way to keep your native trees looking their best.

Most native trees, regardless of where  
*read on page 6*

## Show Your Stuff

Have you or your friends used native plants to create an interesting planned landscape in your neighborhood or community? If so, send a slide of your planned landscape or garden, its location, a list of the native plant species in it, and your name or the name of your organization to the Wildflower Center, attention: Editor. We'll try to run a slide each issue and show what your fellow members are doing to restore our native plant heritage. If you

would like your slide back, please enclose a self-addressed, stamped envelope.



## Exploring the Native Plant World

"We worry when kids roll in the mud or wade through a puddle because they'll get "dirty." Children learn attitudes and values very quickly and the lessons in cities is very clear -- nature is an enemy, it's dirty, dangerous or a nuisance. So youngsters learn to distance themselves from nature and try to control it."

David Suzuki

So many of us are urban dwellers. Can we even recognize a natural landmark, or are they all human made? (How would you give directions to an out-of-town visitor? Is it, "take a right at the Walmart just beyond the third stop light?" Or is it "turn right at the ancient snag just past those rhododendrons on the corner?") How, then, can we teach our children to know nature? To know their place in nature? To actually become native to their place in nature?

Children are born naturalists. They inherently like to explore and name and discover and observe in the out-of-doors.

Where does this go astray? Is it lost as childhood is left behind? Can we teach our children to learn their way around the natural world the way we teach them to navigate their cities?

The Wildflower Center has recently developed a new curriculum which provides a road map to help children navigate their way through nature. Written for grades K - 6, *Exploring the Native Plant World* integrates science and language arts, and includes activity kits for use in the classroom and field packs for use in on-site field study trips.

Designed to teach children to recognize familiar shapes in nature, understand nature goes through cycles, realize all living organisms need certain things to survive, and discover all living organisms must adapt to a changing environment, *Exploring the Native Plant World* builds on children's knowledge as they progress through the elementary grades.

*Exploring the Native Plant World* is alive with activities that keep children doing and thinking. Activities that help students take responsibility for their own learning. Activities that ignite curiosity and provide challenges.

Teaching our children about the beauty and value of native flora and providing them with the skills to become good stewards of the Earth is vital to our continued existence.

*Exploring the Native Plant World* is being piloted in local classrooms and will be revised and made available to you in the future. This curriculum was supported through the generosity of 3M.



Julie Barrett Heffington is the Education Director at the Wildflower Center

The National Wildflower Research Center is a nonprofit research and educational organization committed to the preservation and reestablishment of native wildflowers, grasses, shrubs, trees, and vines in planned landscapes.

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Lady Bird Johnson

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## WILDFLOWER CENTER NEWS! NEWS! NEWS!

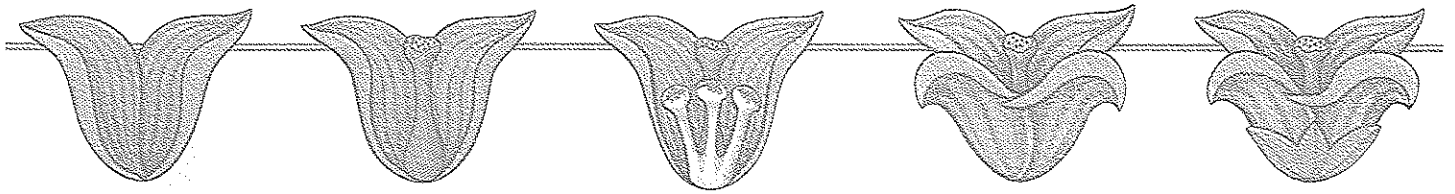
The Center's new facility received the coveted Texas Society of Architects Design Award for 1995. The Center is one of 13 projects recognized from among 152 entries. Many professionals contributed to the design and construction of the Wildflower Center and share this high honor. All award winners were featured in the November/December issue of *Texas Architecture*.

The February issue of *House Beautiful* features a center-spread article on the Wildflower Center and includes an interview with founder, Lady Bird Johnson.

The Center will offer two, two-week courses in June and July of 1996 through the Native Landscape Design Institute, led by Institute Director Darrel Morrison, FASLA: *Reading the Local Landscape -- Techniques and Methods* (June 19 - July 2) and *Designing with Native Communities* (July 3 - 16). For more information, write the Wildflower Center, Attn: Design Institute.

Senior botanist, F. M. Oxley, served as a consultant for *Wildflowers*, a new publication in the *Complete Gardener* series by Time-Life Books. For more information on this comprehensive resource, call Time-Life Books at 800-621-7026.

The Center's *Map and Guide to the Grounds* won first place from the National Association for Interpretation as an outstanding site publication.



# Five Layer Flower

Margaret Russell & F.M. Oxley  
 Curriculum Developer Education Programs Mgr./Sr. Botanist

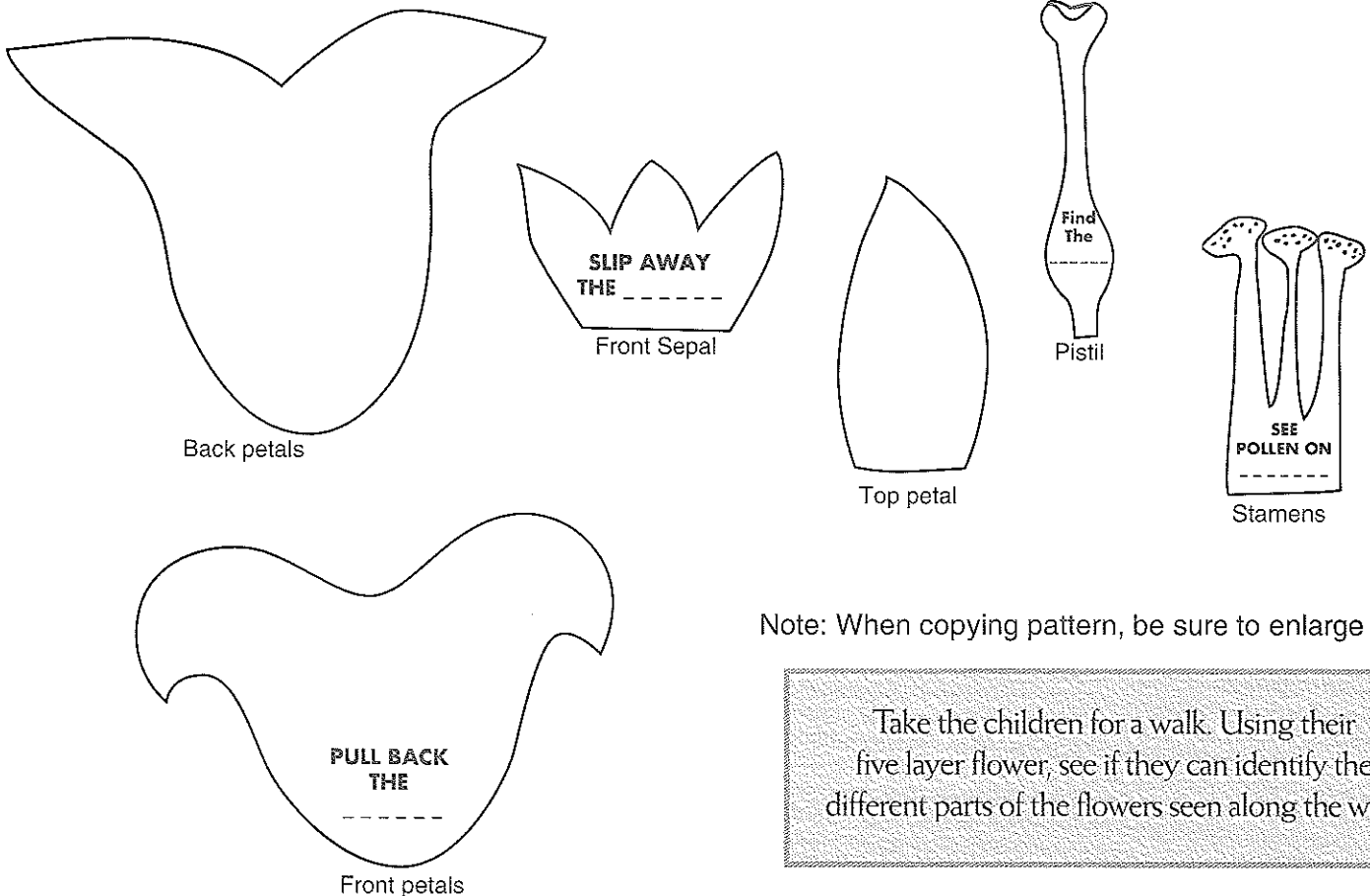
Children love to learn, especially when it's fun. The following activity, from the Wildflower Center's new *Exploring the Native Plant World* curriculum, presents a very basic plant anatomy lesson. Children will learn the four basic flower parts and their functions by building a five layer flower.

**Materials:** white paper, pattern sheet, colored markers, crayons, tempura paints, glitter, staples, glue

Begin by dissecting a real flower and labeling the parts. Sepals are special because they protect the developing flower bud. Petals are pretty to attract bees, butterflies, and other pollinators to the flower. Stamens are super, and produce the pollen that pollinators move from flower to flower. The stamens are composed of an anther at the top of a filament. Pistils are productive because they produce eggs. A pistil has three parts: the sticky stigma at the top; a long, slender style; and the ovary at the bottom.

Make copies of the pattern sheet. Give each child a pattern to decorate, cut out, and staple together. Have the children label their flowers by filling in the blanks on each flower part (for example: "Slip away the sepals"). The children can "customize" their flowers by adding glitter nectar guides, pollinators, etc.

## FIVE LAYER FLOWER PATTERN



Note: When copying pattern, be sure to enlarge 78%.

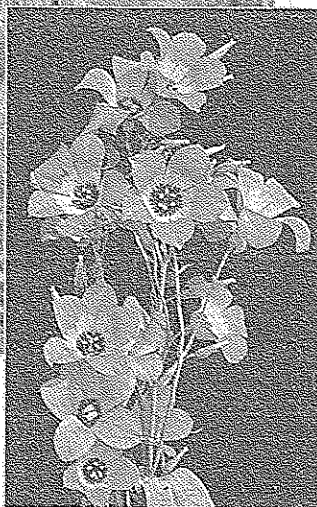
Take the children for a walk. Using their five layer flower, see if they can identify the different parts of the flowers seen along the way.

# Wildflowers

## NOTEBOOK



W. D. Bransford  
Norman G. Flaigg



**Botanical Name:** *Eustoma grandiflorum*

**Pronunciation:** You-STO-ma  
grand-i-FLOOR-um

**Common Name:** Bluebells

**Family Name:** Gentianaceae  
(Gentian Family)

**Range:** Oklahoma south to Mexico,  
west to Colorado and Nebraska

**Habitat:** Moist places in prairies  
and fields

Bluebells are propagated only by seed, and have disappeared from many parts of their range due to wild collection of the flowers before they have set seed. A cultivated variety called *Lisianthus* sp. is marketed in Japan as bluebells.

*Eustoma* sp. seeds are extremely small (one plant may produce more than 1,200), and rather difficult to germinate. The best results have come from surface seeding in flats at 70° to 75°F (21° - 24°C) where they receive light. Field seeding may be done in spring or fall, however, those sown in the spring usually over winter before blooming. The bloom period extends from June to September.

Bluebells are some of the most beautiful summer flowers, and as many as 15 large, showy flowers may be seen on the 2 - 3 ft (.75 - 1 m) tall stalks. While the common name is indicative of the color of most *Eustoma* sp. flowers, the color can range from white to pink to dark purple.

**Botanical Name:** *Liriodendron tulipifera*

**Pronunciation:** Lee-rec-o-DEN-dron  
too-li-PIF-era

**Common Name:** Yellow poplar,  
tulip tree, canoe wood

**Family Name:** Magnoliaceae  
(Magnolia Family)

**Range:** Vermont south to Florida, west  
to Arkansas

**Habitat:** Deciduous woods

*Liriodendron tulipifera* is the tallest hardwood tree in North America, and its straight trunk can reach 200 ft (60 m) in height and up to 10 ft (3 m) in diameter. The extremely light wood is strong and easy to work, making *Liriodendron* sp. the early choice of colonial furniture makers and pioneers building canoes and setting out for points West. This tree was so

important to the early settlers they introduced it to Europe in the mid-1600s, soon after their first struggles at colonization.

The *Liriodendron* sp. flower, while often difficult to see at the top of the tall spire, is extremely beautiful, and the source of the species name: *tulipifera*, meaning tulip-bearing. Each of the large, tulip-shaped flowers is about 2 in (5 cm) high and surrounded by six cream-green colored petals, which are prominently marked on the inner surface with a bright orange band. The numerous stamens and pistils are spirally arranged, a trait seen in primitive plants and common in the Magnoliaceae family, recognized as one of the most ancient families still in existence.



Albert Vick

# Resolving

from page 1

## PLANT NATIVE SPECIES!

☘ Support local native plant nurseries and learn their inventory. Make sure none of their plants are dug from the wild, which destroys habitats.

☘ Give native trees and shrubs as gifts to celebrate birthdays, weddings, and other special occasions.

☘ Support groups that do wildflower plantings, such as your department of transportation, native plant societies, and civic groups.

☘ Encourage your friends to become members of the National Wildflower Research Center.

The Wildflower Center's Clearinghouse is full of useful information to help you fulfill these resolutions, why not resolve to take advantage of this excellent resource? While good plants may be hard to find, good native plants are all around.

## REMARKS

by Marybeth Little Weston Lobdell  
(Founding Board Member) at the  
Opening of the Little House,

October 28, 1995

To share a love of nature with a child is to plant the seed of scientific curiosity, an awareness of the usefulness and importance of each plant and creature, and a sense of wonder knowing that we are part of the land, yet stewards of the land.



My sister [Nora Little Green] and I hope the Little House and its outreach will share with generations of children the spirit of Lady Bird Johnson and the love of nature that is a lifelong blessing.

# F F L D

## NORTHEAST

Buffalo, NY: *Wildflowers and Their Allies: The Insects*, February 13, Contact: Niagara Frontier Botanical Society, Buffalo Museum of Science, 1020 Humboldt Parkway, Buffalo, NY 14211, (716) 896-5200.

Buffalo, NY: *Albany Pine Barrens and Fire Ecology*, March 12, Contact: Niagara Frontier Botanical Society, Buffalo Museum of Science, 1020 Humboldt Parkway, Buffalo, NY 14211, (716) 896-5200.

## SOUTHEAST

Atlanta, GA: *Use of Native Plants in the Cultivated Landscape*, January 10, Contact: Georgia Native Plant Society, P.O. Box 422085, Roswell, GA 30342, (404) 876-5859.

## OKLAHOMA/TEXAS

Dallas, TX: *Unifying Plants and Place*, February 3, Contact: The Dallas Arboretum, Education Department, 8617 Garland Rd., Dallas, TX 75218, (214) 327-8263.

Dallas, TX: *Blue Ribbon Perennials and Native Plants*, February 8, Contact: The Dallas Arboretum, Education Department, 8617 Garland Rd., Dallas, TX 75218, (214) 327-8263.

## CALIFORNIA

Lancaster, CA: *3rd Annual High Desert Native Plant Sale*, April (all month), Contact: AVRCD Nursery and Arboretum, 10148 W. Ave I, Lancaster, CA 93536, (805) 942-7306.

## Wild Reading for Long Winter Nights

As Longfellow said, there are favorable hours for reading a book, so here's a list of great new books available through the Wild Ideas store and catalog:

**The Native Plant Primer: Trees, Shrubs, and Wildflowers for Natural Gardens** Carol Ottesen. New! A comprehensive, practical, region-by-region gardener's guidebook. Lavishly illustrated with 500 color photographs. Hardback. 368 pages. \$50.00

**Pods: Wildflowers and Weeds in Their Final Beauty** Jane Embertson. This lovely book focuses on a forgotten season. 450 color photographs show how to identify pods correctly and how to appreciate a faded flower. Paperback. 186 pages. \$18.00

**Pioneering with Wildflowers** George D. Aiken. Written by a U.S. Senator 60 years ago, this classic about 250 Northeastern species is still delightful and informative. Paperback. 145 pages. \$12.95

**Landscaping with Wildflowers** Jim Wilson. A beautifully illustrated book, with chapters dedicated to each of the major types of wildflower landscaping. Paperback. 244 pages. \$19.95

**Fields of Dreams: Travels in the Wildflower Meadows of America** Tim Fitzharris. Transport yourself to where entire days are lost in dreams, musings, poetry, luminous photographs, and spiritual prose. Paperback. 74 pages. \$14.00

Use this form (or a copy) to order the books above. Make check payable to NWRC and mail with this form to: NWRC Book Orders, 4801 La Crosse Avenue, Austin, TX 78739. Or call (512) 292-4300, Monday - Saturday, 9 a.m. - 5 p.m. (CT).

Book Title(s): \_\_\_\_\_

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## Pruning

from page 1

they grow, have one thing in common: they all go through a period of dormancy during winter which protects them from freezing. Several mechanisms help trees maintain their winter dormancy: shedding leaves, allowing tissues to freeze at a controlled rate (called *supercooling*), or decreasing the amount of water present in tissues (called *drying down*). The right time to prune is determined by which of these mechanisms is used.

### Pruning Guidelines

Trees that shed their leaves during the winter are called *deciduous*. Deciduous trees, including oaks and ashes, can be pruned any time during their dormancy (generally from leaf-fall through early spring growth). Birches, elms, and maples tend to "bleed" heavily, and should be pruned in early winter.

Pines and spruces, or evergreen conifers, in northern regions undergo supercooling, while conifers in warmer regions simply slow their growth. Prune conifers just prior to the start of early spring growth.

Broadleaf evergreens, including evergreen magnolias and oaks, slow their growth during the winter. These species should be pruned as the weather begins to warm and just before they begin rapid, spring growth.

Summer or fall blooming species, such as sumacs and hawthorns, can be pruned any time prior to the beginning of spring growth. Pruning encourages bigger blooms and larger flower clusters. Keep an eye out for dormant flower buds, and don't prune early spring bloomers until after they bloom.

With a little care and attention, your native trees will look great, feel great, and thrive for years to come!



## Remembering with a Tribute Gift...

What better way to honor someone special or remember a loved one than a tribute gift to the Wildflower Center? These special gifts allow you to show your respect and love, as well as contribute to the natural heritage of North America.

Simply mail your gift with the name of the person you are honoring and the name and address of the person or family you would like informed of your gift. Acknowledgements will be mailed promptly, and your gift will help the Wildflower Center educate others

about the enjoyment and savings native plants can bring.

Send your inquiries or gifts to the  
National Wildflower Research Center  
4801 La Crosse Avenue  
Austin, Texas 78739-1702  
Attention: Tributes.

If you are interested in receiving a book of 12 tribute forms to simplify the process, contact the Development Office at (512) 292-4200.

## WILDFLOWER DAYS ARE COMING!

Mark your calendar now for the annual Wildflower Days Festival. This spring spectacular will be held Saturday and Sunday, April 13 and 14, at the Wildflower Center. Authors, speakers, musicians, and planting demonstrations will share space with hundreds of brilliant wildflowers for an event you won't want to miss! Look for more details in the March/April *Wildflower*.



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## Grow Native!

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