

WILDFLOWER

A non-profit organization committed to the preservation and reestablishment of native wildflowers, grasses, shrubs, and trees.

When building, don't hesitate — save a tree and keep your landscape beautiful!

When a site is being considered for development, trees are often the dominant landscape feature. Mature trees possess a certain majestic integrity that small landscape plants can't provide. They offer a sense of permanence and stability.

Protecting significant trees from construction is worth considering because they increase property value, save labor and replacement costs, screen traffic noise, purify air, save energy resources with their shade, and provide wildlife habitat. Time and effort invested in preventing damage during the design and construction phases can save money — and trees — and is worth the effort. With the proper follow-up maintenance, trees have an excellent chance of surviving the development around them.

It's important to understand how trees can be injured during the construction process:

- **Soil compaction**
Traffic and material storage — especially on or near the drip line — can pack soil tightly, keeping water from reaching the roots, and straining the

tree's ability to adapt to environmental changes

- **Root damage**
Cutting roots for utility lines or grade changes interrupts the flow of water and nutrients to a specific part of the tree canopy. If roots must be cut, they should be severed cleanly, not with a backhoe.

- **Impervious cover**
Installing parking lots and patios or using construction methods that cover tree roots prevents the necessary exchange of air and water and may kill the tree.

- **Grade changes**
New drainage patterns can cause water to collect in areas where it previously did not. Unless new drainage is provided, the roots of many tree species will suffocate and rot. Soil build-up from grade changes should not exceed two to four inches. Don't allow any of the root flare to be covered with soil, because the bark will eventually rot and the tree may die. Soil reduction should not expose any roots because they may desiccate and cease to function.

- **Collision damage**
Construction workers hitting trees with equipment

provides easy access for diseases and insects and may prevent water move-

(read on page 6)



Partnership of developers and contractors saves trees

The construction foreman must cooperate to insure the health of the existing trees on the construction site.

Among the ways to protect trees on the site:

- **Create a no-activity perimeter zone**
around a tree or a group of trees with fencing and signs explaining their purpose.

- **Establish a temporary common route** for vehicles on and off the site. Lay down eight inches of mulch on the designated path to cushion the weight of vehicles, reducing soil compaction and retaining soil moisture.

- **Designate areas** at the site specifically for materials stockpiling, chemical storage, and waste disposal.

- **Educate contractors** working on the site about the importance of following the guidelines. A financial incentive, such as a stiff fine for non-compliance, is helpful.



The debut of our redesigned newsletter unveils our new National Wildflower Research Center logo. We hope you enjoy both! Please also see page 5, where you will find a new feature: Wildflower Notebook. Let us know what you think!

Construction of new facility will respect the environment

When the Board of Trustees found the site for our new location that best matched our needs, it commissioned thorough geographical, hydrological, and ecological studies to evaluate fully the environmental situation and to search for possible rare or endangered plant or animal species. The studies found two underground aquifer recharge features, which will provide us with an opportunity to show the importance of protecting such landmarks, as they frequently drain into aquifers that provide drinking water or agricultural irrigation for large numbers of people.

Armed with this information and a 50-page Program Architect Report prepared by Budd, Beets, Hardin and Kolflat Architects of Austin, we initiated a Capital Campaign to fund a new facility that will provide us with expanded space for research and education programs.

The Board's Building Committee earlier this year selected an outstanding site planner, an architect, and a landscape architect to design our new facility. Darrel Morrison, dean of the School of Environmental Design at the

University of Georgia, is the senior site planning consultant; Overland Partners of San Antonio, Texas, is the architectural firm; and J. Robert Anderson, ASLA, of Austin, is the landscape architect.

It is important to have the complete team working together from the beginning, so the integrity of the land will receive priority. The architects have described the process as working from the outside of the building to the inside — the reverse of their normal procedure.

Our team evaluated the land to determine which areas were environmentally safest for construction, and existing mature trees will be protected. Once the best site was selected, the engineers and architects determined exactly how the "footprint" of the buildings should be located to blend best with existing topography and vegetation. Then they developed sketches that depicted the outside of the buildings, along with the existing vegetation and views. Our goal is to have the building and land complement each other, as the building should not dominate the land.

Next, the architects will design interior floor plans for the visitors areas, of-

fices, and research and education spaces.

Landscaping plans are being developed simultaneously with building design and placement. We will preserve and enhance most natural areas, while repairing others, including the construction zones. The landscaping, which uses all indigenous plants, will vary in style from the more formal to naturalistic.

We are pleased with how these careful plans have been developed and how well the design team has worked together to accomplish our goal. Our new home will be an example of how humans can better coexist with the land we occupy, and how we can protect and even enhance the natural resources of that land. We look forward to sharing this special place with our members and the public.



David K. Northington, Ph.D. is executive director of the National Wildflower Research Center.

Wildflower

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WILDFLOWER CENTER NEWS

The **Rockwell Fund** has presented a \$10,000 grant to the Wildflower Center for the creation of comprehensive **regional information booklets**, which will be available through the Clearinghouse Information compiled in these booklets will be based on regional biological considerations instead of more artificial state boundaries.

Horticulturist Denise Delaney will speak at the **Texas College and University Grounds Maintenance Conference** in San Antonio in January.

Our **traveling display** will be updated thanks to a generous grant from **ARCO**.

The display, which garnered a blue ribbon at the New England Flower Show in 1991, has received quite a bit of wear and tear over the years. Thanks to ARCO, it will stay in blue-ribbon shape.

Artist **Mary Welborn Davis** has created a stunning **poster** to commemorate our first decade of growth. Mary, who regularly volunteers her time and talent to the Center, spent more than 50 hours creating this masterpiece. The poster is available through the products division. Send \$8, plus \$3 for postage. Texas residents add 50 cents sales tax. Please send your requests to the products division, using the address listed on the back page.

U.S. Postal Service Statement of Ownership, Management and Circulation

On Sept. 22, 1992, *Wildflower* (0898-8803), a bimonthly publication printed six times per year, with an annual subscription price of \$25, filed its statement with the U.S. Postal Service, as required by law:

Teta Goodwin Mange, editor, is an employee of the publisher and owner, the National Wildflower Research Center. Both may be reached at the organization's headquarters, 2600 FM 973 North, Austin, TX 78725-4201.

The organization's function, purpose, and tax-exempt status have not changed in the preceding 12 months.

Average number of copies printed during the preceding 12 months: 15,058. Average number of mail subscriptions during the preceding 12 months: 13,678. Average number (total) of paid and/or requested circulation during the preceding 12

months: 13,678. Average number of free distribution during the preceding 12 months: 345. Average total distribution during the preceding 12 months: 14,023. Average number of copies not distributed: 1035. Average total: 15,058.

Average number of copies printed nearest to filing date: 16,500. Average number of mail subscriptions nearest to filing date: 16,244. Average number (total) of paid and/or requested circulation nearest to filing date: 16,244. Average number of free distribution nearest to filing date: 2001. Average total distribution nearest to filing date: 16,445. Average number of copies not distributed: 55. Average total: 16,500.

Teta Goodwin Mange certifies that these statements are correct and true.

Wildflower

NOTEBOOK



Botanical name: *Aquilegia caerulea*
Pronunciation: Ack-quill-LEE-jee-uh car-rule-lee-uh
Common name: Blue columbine
Family name: Ranunculaceae (Buttercup family)

Habitat: Mountains, commonly in aspen groves.
Range: Western Montana to northern Arizona and northern New Mexico
Bloom period: Mid-June through mid-August

The blue columbine is the state flower of Colorado. A distinctive feature of this plant is the hanging or horizontal flowers, whose five petals have long tubes, called "spurs," that extend upward or backward and are typically 1-1/2 inches long. These plants are often cultivated in gardens and exhibit several color phases and "doubled" flowers. The blue columbine, as well as several other species, has been used to produce many columbine hybrids.

The blue columbine grows at elevations of 6,000 to 12,000 feet; those

found at higher elevations are often more colorful than those at lower elevations. The plants often cover large areas in the high mountains and the large blue and white flowers are a spectacular sight. While columbines are not considered important forage plants for domestic livestock, sheep will often graze them heavily.

The genus name, *Aquilegia*, comes from the Latin "aquila," which means eagle, and refers to the spurred petals that many believe resemble an eagle's talons.



Scientific name: *Lilium philadelphicum*
Common name: Wood lily
Other common names: Orange cup, Philadelphia lily, Western red lily
Family: Liliaceae (Lily family)
Habitat: Prefers slightly acid soils of dry open

woods, thickets, clearings and, in the western part of its range, prairies.
Range: Occurs from eastern Canada, south through New England and the Appalachians to North Carolina, west to Nebraska and New Mexico
Bloom period: June to August

Like an orange-red ember glowing from the deep shadows of surrounding vegetation, the wood lily is a familiar and beautiful woodland plant. Wood lilies come in two varieties based on coloration and leaf arrangement.

While the western form (var. *andinum*) has alternate leaves and deep orange to scarlet flowers, the eastern form (var. *philadelphicum*) sports yellowish orange blossoms with whorled leaves.

The petals (or more properly, tepals) are dappled with purple-brown spots that act as nectar guides directing hungry bees to a sweet liquid reward at the base. Unlike the superficially

similar Turk's cap or tiger lilies, whose nodding flowers face the ground, wood lily flowers stand erect, catching stray sunbeams in their glowing cups.

Savored by humans and wildlife alike, the relatively small, starchy bulbs, most about 1 inch in diameter, can be dug up and eaten like potatoes. The Dakota Indians were reputed to have chewed or pulverized the flowers of the wood lily and applied the paste as an antidote for the bite of a poisonous brown spider.

Wood lilies should not be picked or removed from habitat as they seldom survive being transplanted.

Meet our new Wildflower Center staff members!

Three staff members have joined the Wildflower Center during the past few months. We're lucky to have these qualified and enthusiastic employees!

Patricia Alholm, our publicity and marketing coordinator, secures media coverage of the Center and coordinates the speakers' bureau. Patricia has served as the public affairs coordinator for the Animal Humane Association of New Mexico and in various marketing and writing positions across the country. She studied advertising and public relations at the University of Arkansas in Fayetteville.

Denise Delaney, our new re-search horticulturist, joined the Wildflower Center after working for several years as a horticulturist for the University of Texas Botany Department. She was the horticulturist for Bauer House, the residence of the UT System Chancellor in Austin, and has held many other horticulture-related positions.

Molly Sherman, the new development associate, is responsible for writing grants and performing other development duties. She received her Plan II bachelor's degree and her Master's in Business Administration from the University of Texas. Before joining the Center, she was a banking officer for NationsBank (formerly NCNB) and a management consulting summer intern for KPMG Peat Marwick in Houston.

We're proud of our new staff members, we hope you are, too!



Our newest staff members are a welcome addition to the Wildflower Center. Left to right, Denise Delaney, Molly Sherman, and Patricia Alholm.

Planned Giving: the gift that continues on

Charitable gifts, despite changes in the federal tax code, are still one of the few methods allowed to encourage support for non-profit organizations such as the Wildflower Center. With careful planning, a gift will benefit the Center, and help you use your assets to your best advantage.

The most common type of gift to the Center — cash or check — is fully tax-deductible if the total of all your charitable gifts for the year does not exceed 50 percent of your adjusted gross income.

"Planned gifts" include gifts of stock, bonds, property and other non-cash goods, and gifts through estate settlements, all of which can provide increased tax benefits.

Estate settlements, or *gifts by will*, are the most common form of planned gift. In this case, a bequest (or gift) of personal or real property is given to the Center through your will in one of three ways.

Specific bequests give a stated amount of money, piece of property, or percentage of your estate to the Wildflower Center. *Residuary bequests* give the Wildflower Center the remainder of your estate once all specific bequests have been satisfied. *Contingent bequests* name the Wildflower Center a beneficiary of your estate if you outlive one or more of your other beneficiaries.

Gifts by will can reduce your estate taxes, funeral costs, legal fees, and other related costs, depending on the type of bequest you choose.

Outright gifts of appreciated stock or securities are fully deductible at their current *fair market value* at the time the donation is made, and may help you avoid capital gains taxes. For example, the XYZ stock you purchased ten years ago for \$1,000 now has a current fair market value of \$10,000. If you donate the stock to the Wildflower Center, you are allowed a tax deduction of \$10,000 and are not taxed on the \$9,000 gain.

It should be noted, however, that planned giving is a complex field. If you wish to make a gift of stock or securities, please have your stock broker contact the Wildflower Center Development Office to ensure that the transfer provides you with the maximum return on your gift and is handled according to IRS regulations.

If you are interested in learning more about planned giving and how it can best suit your needs while benefiting your favorite non-profit organization, detailed information is available from your attorney, tax specialist, or the Wildflower Center's Development Office.



Photo contest winners present pictures of America

We're pleased to announce the winners of The Native Beauty of America Photo Contest, which was our first national photography contest. More than 50 people entered the contest, which had two categories: Home or Commercial Landscapes and Wildflower Vistas.

In the Wildflower Vistas division, Elizabeth Prothro of Wichita Falls, Texas, won first and third places. Robert Clark of San Antonio took second place.

In the Home or Commercial Landscapes division, Lindy Lee Van Sickle of Camano Island, Wash., took

first place. Emily Baxter of Harrisonburg, Va., took second, and Erik S. MacPeck of Stonington, Conn., won third.

The winning photographs will be displayed in our traveling display, and all of the entries will join our slide collection.

Special thanks go to our judges: Ed Schneider, director of the Santa Barbara Botanic Garden, Linda Askey Weathers, Garden Editor of *Southern Accents* magazine, and Jeff Alexander, photographer with the *Albuquerque Journal*.

Thanks to everyone who participated in the contest!

FROM THE
FIELD

Managing Riparian Areas: Common Threads and Shared Benefits, Feb. 4-6, Albuquerque, NM. Contact: 1993 Riparian Conference, Water Resources Center, University of Arizona, 350 N. Campbell Ave., Tucson, AZ 85721, (602) 792-9591.

International Grasslands Congress, Feb. 8-23, Palmerston, New Zealand. Contact: Grasslands Congress Organizing Committee, c/o Agronomy Dept., Massey University, Palmerston North, New Zealand.

Society for Range Management, Feb. 14-19, Albuquerque, NM. Contact: SRM, P.O. Box 91028, Albuquerque, NM 87199-1028.

Midwest Oak Savannah Conference, Feb. 20, Chicago. Sponsored by Nature Conservancy, Northeastern Illinois University, U.S. EPA, and University of Wisconsin. **Contact:** Glynis M. Garland, U.S. EPA Region 5, 77 W. Jackson, WCP-15J, Chicago, IL 60604, (312) 886-0206.

Implementing Integrated Environmental Management, March 9-11, Blacksburg, VA. Contact: John Cairns, Jr., University Center for Environmental and Hazardous Materials Studies, 1020 Derring Hall, Virginia Tech, Blacksburg, VA 24061-0415, (703) 231-5538.

Eco Expo, March 12-14, Los Angeles. Environmental trade fair. Contact: 14260 Ventura Blvd., Sherman Oaks, CA 91423, (818) 906-2700.

Riparian Ecosystems in the Humid U.S.: Functions, Values, and Management, March 15-18, Atlanta. Conference sponsored by EPA, USDA, and National Association of Conservation Districts. Contact: Beverly Ethridge, U.S. EPA, Region VI, 1445 Ross Ave., Dallas, TX 75202, (214) 655-2263.

North American Wildlife and Natural Resources Conference, March 19-24, Washington, DC. Contact: L.L. Williamson, Wildlife Management Institute, 1101 14th St. NW, Suite 725, Washington, DC 20005.

Spring's coming — we promise! Get prepared!

Winters in the northern and Rocky Mountain states are often long and cold. But spring always comes, banishing winter's white blanket with her colorful bouquets of wildflowers. Start preparing now for the arrival of spring with a selection of references from the Center's mail order division.

• **A Field Guide to Wildflowers (Northeastern/North-Central North America).** Edited by **Roger Tory Peterson.**

Coverage of the United States westward to the Dakotas and southward to North Carolina and Arkansas, as well as adjacent parts of Canada. 1,293 species. 422 pages. Paperback \$15.95.



• **Roadside Plants and Flowers.**

Marian S. Edsall. A quick and easy-to-use guide to more than a hundred roadside plants and flowers throughout the upper Midwest, including Minnesota and lower Ontario, to Missouri and Ohio. An ideal travel companion! 143 pages. Paperback \$14.95.

• **The Wildflower Gardener's Guide: Northeast, Mid-Atlantic, Great Lakes and Eastern Canada Edition.** **Henry W. Art.** How to grow the most popular native plant species in the region. With thorough identification section, including maps, information on planting and propagation, light, temperature, and soil requirements, and recommended companion plantings. 76 color photographs, 180 pages. Paperback \$14.95.

• **A Field Guide to Rocky Mountain Wildflowers.** Edited by **Roger Tory Peterson.** Descriptions of 590 species,

with detailed information on ranges, habitats, etc. 200 color photos. Glossary. 275 pages. Paperback \$13.95.

• **Alpine Wildflowers.** **Dee Strickler.**

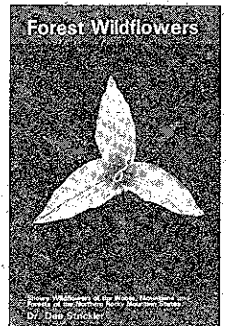
Invaluable pocket guide to the showy wildflowers of the alpine and subalpine areas of the northern Rocky Mountain states. A convenient guide for hikers, travelers, and all amateur botanists, as well as teachers, range managers, and other experts. Color photographs. 112 pages. Paperback \$9.95.



• **Prairie Wildflowers.** **Dee Strickler.** Handy guide to the open terrain wildflowers of the northern Rocky Mountain states. Color photographs. 80 pages. Paperback \$9.95.

• **Forest Wildflowers.** **Dee Strickler.**

Convenient field guide to forest wildflowers of the northern Rocky Mountain states. Color photographs. 96 pages. Paperback \$8.95.



Buying products through the Center's Products Division benefits you and the Wildflower Center. You get quality merchandise, and the Center raises money for its programs.

Don't forget — members receive a 10-percent discount! To order, please use the form below (or a photocopy). Please allow 10 to 15 business days for delivery.

Use this form (or a copy!) to order any of the books above. Make 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.

Book Title(s) _____



Total price of book(s) _____

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Texas residents add 6-1/4% sales tax+ _____

Shipping (1-2 books: \$3.00, 3 books: \$4.00)+ _____

Total _____

Ship to:

Name _____

Phone (____) _____

Street address _____

City _____

State _____

Zip _____

Save A Tree

(from page 1)

ment Plus, wounds are unsightly

• Chemical spills Paint, paint thinners, oil, concrete washings, and other items are frequently poured near trees and can kill roots.

Preventive measures can be taken during the design and construction phases to alleviate much of this damage A professional arborist or urban forester should evaluate the trees and decide which are the most practical to save, considering the tree's growth habit, life cycle, location, health, age, and desirable characteristics.

Younger trees often can withstand disturbance better than older ones, and healthy ones better than diseased ones Some tree species with

a higher root regeneration capacity can better tolerate root disturbance. Some tree root systems are not extensively branched and some are quite shallow, so when their roots are damaged, it is more detrimental.

Trees are among our most valuable resources They can't get up and run away when they see a bulldozer or backhoe coming their way, so they need us to protect them We must continue our efforts to reestablish and preserve our existing and native plants whenever it is feasible.

Denise D Delaney
Horticulturist
National Wildflower Research Center

Coming next

issue...

Entry form for the
Native Beauty of
America photo
contest.

Turn over a new leaf: 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 and T-shirts; free or reduced admission to more than 80 botanic gardens; discounts to Center seminars; free wildflower information from the Center's Clearinghouse; and a membership card.

- \$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 tote bag and invitations to special events.
- \$250 Center Sponsor.** All the above plus full-color wildflower address book.
- \$500 Trust Member and \$1,000 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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Wildflowers Work!

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