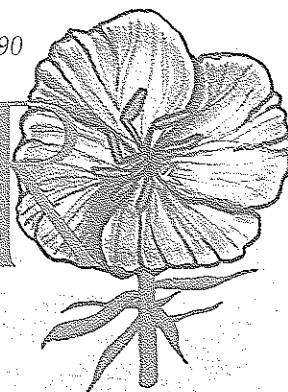


WILDFLOWER



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

"Wild" landscaping takes careful planning

Gardening with wildflowers and other native plants doesn't mean gardening without design or plan. Whether the desired results are a landscape that "looks" like a natural planting or a more traditional style, the first step is developing a set of plans. Your landscape plan may include areas that are "wild" with wildflowers, with defined areas of native trees, shrubs, and perennials. Lawn areas may be used as a wildflower area part of the year, then maintained as a lawn after the wildflowers have set seed.

When planning, you must decide what you want from your landscape, how you will interact with it, and how it will fit in with any existing landscape and architecture. Any existing native vegetation is a head start, so incorporate as much of it as possible into the plan. A landscape architect can help during the initial planning and design phase.

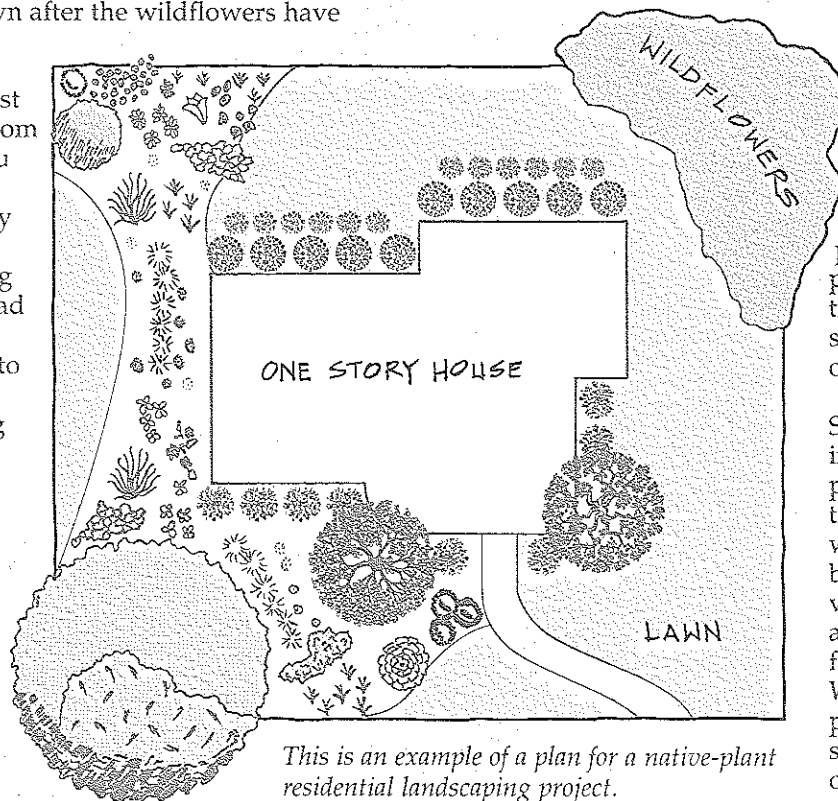
No matter what native landscape you choose, fall is the best time to plant wildflower seeds and container-grown trees, shrubs, and perennials. Fall's cooler temperatures and typically higher rainfall help container-grown plants establish more quickly. Wildflower seed planted at this time may germinate with fall rains or may require winter's chilling temperatures to trigger spring germination.

Species selection should be based first on adaptability to the site conditions and second on color, size, and texture. Wildflower species may be selected based on blooming times, so there will be a succession of blooms over time.

Preparing your site for planting depends both on the site and whether you use container-grown plants or seeds.

Container-grown plants will establish better with some soil preparation. Depending on the existing soil condition, you may need to add soil amendments. For instance, you

might need to create drainage for clay soils, or help sandy soils retain water. Adding organic matter, perhaps from a compost heap, will provide nutrients as well as improve soil texture. It is important to know the kind of soil the plants grow in naturally, and to provide some of those basic elements and characteristics. Most native plants will do well in "improved" soils, but some may grow much larger than they would naturally.



Other native plants may require some of the characteristics, such as rocks or caliche, of the native soil that normally would be eliminated from prepared soil. The soil's pH level could be extremely important for some native plants, while others are more flexible.

Site preparation for planting wildflower seeds depends on the site's condition. A site dominated by weeds must be cleared before planting because invasive weeds are too aggressive to allow wildflowers to establish. Weeds may be eradicated passively, by covering for several months with clear or black plastic. Deep tilling is not recommended

because this will disturb buried seeds and enable more weeds to grow.

If grass dominates the site, mow the grass extremely short and rake out the thatch to expose as much soil as possible. The seeds must make contact with the soil. Seeds that land on leaves, blades of grass, or thatch will not germinate.

Once the site is prepared, seeds may be hand-broadcast over small sites. Mixing the seeds with moist sand will help ensure even distribution. For large sites, seeds may be planted with an agricultural grain drill.

Once the seeds are sown or plants are planted, they must have water to establish.

read on, page 5

CATALOG INSIDE!

We are borrowing the Earth from our children

*"Treat the Earth well.
It was not given to us
by our parents,
It is on loan from
our children."*

This is a translation of a proverb from a "primitive" culture. The two salient points here are 1) we, not our parents, shoulder the ecological responsibility for our Earth, and 2) we must educate our children at the earliest possible age to accept this responsibility with us and from us.

The first point may be the more difficult of the two; it is all too easy to bemoan the environmental mess we have inherited and rationalize our continuing actions. Changing things so we can turn over to our children a non-polluted, ecologically balanced and beautiful world will be, at the least, inconvenient. Often, it seems an impossible task.

We have a tendency to expect science and technology to solve all problems for us. In many ways, this is a positive trait that has resulted in extraordinary cultural advances in the past 100-plus years. Expecting science and technology to help solve the problems that have resulted from those advances is reasonable. However, it is not reasonable to expect these problems to be solved for us. We must *all* be involved.

One issue usually overlooked in the volumes of articles about our damaged, polluted, and over-populated Earth is the simple fact that, for the most part, we humans did not perpetuate these acts of environmental destruction maliciously. We therefore should only accept responsibility for what has happened, and not unjustly overburden ourselves with guilt about our mostly inadvertent actions.

If we do not now take steps toward environmental cleanup and repair, we are being irresponsible. Collectively, we adults set the life patterns of children through our example. We parents, teachers, friends, relatives, public officials, scientists, and other publicly visible personalities share the responsibility of demonstrating our commitment to cleaning up and repairing the environment.

One of the most basic messages our children must understand is one of ecological interaction: How native plant communities are the base of the triangle of plant-animal-human interdependence. Understanding the large role native plants play translates into appreciation of their fragile ecological hold, and how unnecessarily removing them threatens the stability of that huge triangle. Other environmental problems are relatively short-term and they pale by comparison. Solving those problems

without addressing the loss of our native plants is addressing only a few pieces of the puzzle, and not the important entire picture.

This understanding explains the importance of re-establishing propagated native plants in our planned landscapes and other areas where natives have been removed and replaced with exotics, hybrids, and cultivars. Roadsides, parks, abandoned farms, and pastureland join home and business landscapes as candidates for this positive act of environmental repair.

Our children and grandchildren do not have a lifetime of bad habits to break. They easily can be trained to reduce consumption, recycle resources, conserve, and replant native plant species and generally "treat the Earth well" for their children. Our children have lent this earth to us; we must repay this loan with accrued interest.

One person, one plant at a time, we can make a difference!



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

Wildflower

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WILDFLOWER CENTER NEWS

The Center's membership Open House at its facilities in Austin, Texas, will be November 9. The time and special events planned are to be announced. Members can take advantage of their 10 percent discount at the giftshop, which will be stocked with special holiday items.

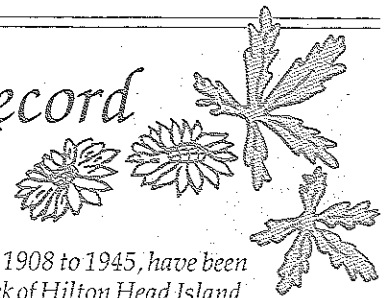
Wildflower has been awarded second place in the Association category of The Newsletter Clearinghouse's annual Newsletter Awards. Four hundred newsletters from around the world were judged in five categories during the competition.

Bluebonnet Blast!, a day of how-to talks and demonstrations of fall wildflower planting, will be Saturday, September 22 from 10 a.m. until 4 p.m.

The Fall Wildflower Festival is set for Saturday, November 10 from 10 a.m. until 5 p.m. Wildflower arts and crafts demonstrations, children's activities, live music, and refreshments will top off the holiday shopping event.

J.C. Penney Company will salute the Center and present Lady Bird Johnson with its Lone Star Lifestyle Visionary Award September 21 in Austin for founding the Center. J.C. Penney will donate to the Center a special edition of signed and numbered prints from a painting the company commissioned. The Center will use the prints for development purposes. The award will be announced in advertisements in the October issues of *Texas Monthly* and *D* magazines.

Breaking the Wildflower Record at Toddy Pond

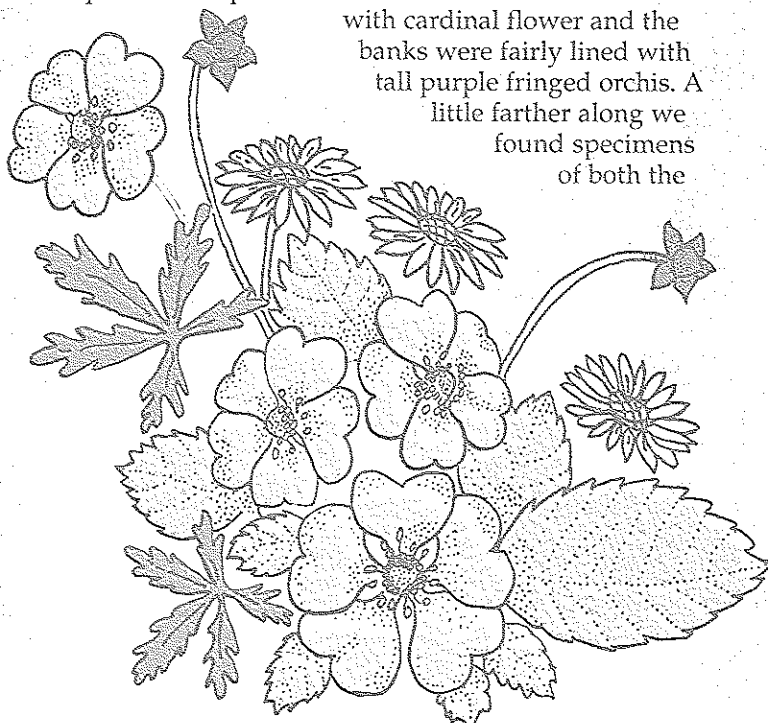


Historic wildflower identification records, kept by Col. and Mrs. Frederick F. Black from 1908 to 1945, have been donated to the Wildflower Center by the Blacks' daughter-in-law, Mrs. Frederick R. Black of Hilton Head Island, S.C. Col. Black was a lifelong naturalist who noted the wildflowers he found in the various areas where he was stationed. The March/April 1990 issue of *Wildflower* contained an excerpt from Col. Black's notes on a particularly successful day of hunting wildflowers with several companions at Toddy Pond, in Maine. This excerpt concludes Col. Black's description of their record-breaking wildflower count.

It had been decided that the cross-country walk would be too strenuous for the ladies, so the party divided here. The ladies were to drive the car to Robertson's, where they would explore the vicinity of the dooryard, which we have always found to be a fruitful locality.

The male members of the party followed the wood road to the north side of the hills and then, turning east for a short distance, succeeded in locating the haying road which we have followed in our other trips. It had grown up considerably since our last visit, but we reached the small hayfield successfully, noting on the way agrimony, two species of ladies' tresses, a well-developed strawberry blossom, and a fine specimen of shinleaf. We remembered a trail leading from here to a larger hayfield which we had followed before and thought we were starting out on it, but it was not long before this trail gave out completely. Continuing, we found rather rough going, a considerable distance being through thick spruce woods where flowers were entirely absent. It took us more than an hour to reach the road which leads to Robertson's and we were nearly a mile north of the point where we have come out before. Following the road, at a place where a brook crossed, a beautiful picture was presented. The bed of the brook was red

with cardinal flower and the banks were fairly lined with tall purple fringed orchis. A little farther along we found specimens of both the



Cinquefoil, Silvery Cinquefoil, Showy Aster

linear-leaved and purple-leaved willow herb by the roadside.

Arriving at our destination, the ladies were found to be still engaged in exploration.

It has always been our custom on these trips to eat our luncheon on one of the islands in Toddy Pond. On this occasion, however, because of the lateness of the hour and the call of our appetites, we selected a shady spot in the dooryard and attended to this pleasant duty forthwith. Comparing notes, we found that our combined efforts had added about 30 flowers to the list since leaving Swan Lake, making our total at this time about 150. The ladies had contributed, among others, silvery cinquefoil, common mallow, rabbit's foot clover, mad-dog skull-cap, caraway, and ground cherry. After clearing up and packing away our surplus equipment in the car, we started down the trail to the pond.

We located common milkweed before entering the pasture and dwarf sumach and green adder's mouth, among others, on the way.

Launching the boat, we rowed to Bass Island and then to Sundew, noting pickerel-weed, pipewort, water lobelia, white water lily, marsh St. Johnswort, showy aster, yellow-eyed grass, and both round-leaved and narrow-leaved sundew. Then, heading for the bog, we explored it thoroughly and were much disappointed at the result. The white bog orchis was plentiful but we were too late for calopogon, pogonia, bladderwort, and the other bog flowers we usually find there.

Re-embarking, we rowed to the landing and returned to the house by the pasture trail.

The return trip to Searsport by another road failed to add any new flowers to the list, but when we took one of the ladies to her cottage on the shore of the bay, we noted sticktight, sow thistle, nightshade, and sea rocket. Home was reached a few minutes after six o'clock.

Two evening sessions with Britton and Brown's *Flora* were required to alphabetize and correct the list, which was found to contain 171 flowers — seven more than our previous record.

Education plays leading role at Center

As the public becomes more concerned about environmental issues, the Wildflower Center's Education Department is playing a greater role in teaching children and adults about native plants and their importance to the environment.

And we are finding that children are becoming more sophisticated in their knowledge of this subject, which is especially encouraging.

To spread the word about wildflowers and other native plants and their environmental value, the Education Department conducts tours of the Wildflower Center, visits classrooms, develops educational materials, and distributes the Center's educational poster and other learning materials.

Schoolchildren, scouting groups, garden clubs, and others from as far away as California and New England have visited the Center. Groups participate in a special educational program and enjoy a walk around our beautiful grounds.



Hornsby Bear is a perennial favorite of children who visit the Center.

Younger children enjoy meeting Hornsby Bear, a huge teddy bear who has become the Center's unofficial education mascot. Hornsby helps children in kindergarten through second grade learn about native plants and the seasons. Hornsby changes his clothes and his hat to reflect seasonal changes.

Staff members and volunteers visit classrooms and other groups to talk about native plants. Four slide shows



Center staffer Peggy Budd conducts educational programs for many groups that visit the Center each year. Here, children examine wildflowers with magnifying glasses.

about regional flora are available through the Center's Clearinghouse for those interested in talking to groups. A 13-minute video about the Center's history and its work also is available for purchase or rental.

Each summer, Center staffers conduct continuing education workshops for teachers, where they learn about wildflowers and other native plants, and how to present this subject to their students.

Among the publications available to teachers are regional fact sheets from the Center's Clearinghouse, a list of "Fun Facts" about wildflowers and native plants, and a beautiful educational poster.

The poster, which features color drawings of native plants and wildlife during the four seasons, as well as classroom lessons and projects, is available free to teachers.

The poster was developed specifically for fourth, fifth, and sixth graders, but teachers in all grades are finding it useful. For example, high school Latin teachers say they enjoy the poster because it features the Latin names of native plants.

Teachers interested in receiving the poster or other classroom materials should contact the Education Department for details.

Anyone with information on individuals or corporations that could help fund the printing and distribution of more posters is urged to contact the Education Department.

*Teachers can obtain
the poster and
educational materials
from the Center.*

The Wildflower Center recently completed a cooperative project with the Texas State Teachers Association to develop a "Texas Wildflowers" curriculum for teachers. The lesson packet includes five different units, complete with exercises and lesson plans, covering wildflowers and other native plants. The classroom and field trip activities were developed by a volunteer group of teachers belonging to the teaching organization Delta Kappa Gamma. We hope the project is duplicated in states around the nation.

If anyone in your state has prepared an education program using wildflowers and native plants, we'd love to hear about it! Please call or write to the Education Department, using the address on the back page.

*Peggy Budd
Volunteer/Education Coordinator*

From the Field

National Roadside Vegetation Management Association Annual Conference, Sept. 25-28, Albuquerque, N.M. Contact: 309 Center Hill Road, Centerville, Del. 19807, (302) 655-9993.

Natural Areas and Yosemite: Prospects for the Future, Oct. 13-19, Yosemite National Park and Concord, Calif. Global issues symposium and annual natural areas conference sponsored by the Natural Areas Association, Yosemite National Park, and The Yosemite Fund. Contact: Coordinator, NA/Yosemite Centennial Symposium, GGNRA, Fort Mason Bldg. 201, San Francisco, Calif. 94123, (415) 556-1009.

Growing on the Delaware, Oct. 7-9, Mountain Laurel Resort, White Haven, Pa. Conference sponsored by the Water Resources Association of the Delaware River Basin. Contact: Box 867, Davis Road, Valley Forge, Pa. 19481, (215) 783-0634.

Native Plant Society of Texas, Oct. 19-21, Houston, Texas. Annual meeting. Contact: Dana Tucket, NPST, P.O. Box 891, Georgetown, Texas 78627, (512) 863-7794.

Mid-South Native Plant Conference, Oct. 26-28, Agricenter, Memphis, Tenn. Contact: Mid-South Native Plant Conference, Lichterman Nature Center, 5992 Quince Road, Memphis, Tenn. 38119.

International Erosion Control Conference, Feb. 20-23, 1991, Orlando, Fla. Discussion of effective erosion control methods used around the world. Contact: International Erosion Control Association, P.O. Box 4904, Steamboat Springs, Colo. 80477.

America the Beautiful Conference, Spring 1991, Washington D.C. Conference on the American landscape, sponsored by the American Society of Landscape Architects. Contact: America the Beautiful, 4401 Connecticut Ave. N.W. Fifth Floor, Washington, D.C. 20008, (202) 686-0068.

Travel to Exotic Locales!

The Wildflower Center and SelecTours have arranged Wildflower and Naturalist tours to several exciting locations in 1990 and 1991. Travel to lush Hawaii, wild New Zealand, beautiful Baja California, or lovely Austin, Texas.

Sonoma, California
September 17-23, 1990
Hawaii
October 13-21, 1990
New Zealand
November 3-18, 1990
Baja California Whale
Search and Exploration
February 1991
Costa Rica
March 1991
Austin
April 1991

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

...Landscaping (cont. from page 1)

Wildflower seeds should be watered if natural rainfall amounts are below normal. Trees and shrubs may need supplemental watering for several growing seasons. Container-grown plants have been well-watered during the growing process and must be allowed to establish in the landscape with ample water before being left to natural rainfall only.

Native plants and wildflowers generally do not require fertilizer. Fertilizer often increases vegetative growth while lessening desired flower production.

The beauty of native landscaping is its diversity and adaptability. The plants are naturally adapted to the climatic conditions, conserving time and resources, and may be arranged in a traditional design, a wild natural design, or a combination of both.

Elinor Crank
Wildflower Center
Research Horticulturist

WILDFLOWER OUTLOOK

To help northeastern meadow enthusiasts choose the appropriate seed mixes for their area, the New England Wild Flower Society has developed a two-page booklet analyzing 49 meadow seed mixes. The booklet lists the mixes, gives the number of plant species in each list, and tells the percentage of plants in each mix that are native to the northeastern United States. The booklet is available for \$1.35 from the Society. Write: The New England Wild Flower Society, Dept. NS, Hemenway Road, Framingham, Mass. 01701.



The Virginia Native Plant Society has adopted a voluntary native plant registry program to help preserve Virginia's native plants and their habitats, according to the group's publication *Bulletin*.

Under the Virginia Native Plant Registry, land owners pledge to protect the site and to provide

limited access to the Virginia Plant Society. Plants protected under the program must be native to Virginia, and for the most part, uncultivated.

Land owners sign no papers and forfeit no rights, but they receive a commendation and a plaque.



The Kansas Wildflower Society reports that Central Riverside Park in Wichita has a wildflower exhibit as part of the park's Kansas Wildlife Exhibit. Among the wildflowers featured in the exhibit are *Berlandiera texana* (green-eyed sunflower), *Polanisia dodecandra* (clammyweed), *Liatris mucronata* (gayfeather), *Gnaphalium obtusifolium* (sweet everlasting), *Monarda* spp. (beebalm), *Liatris aspera* (button blazing star), *Rudbeckia hirta* (black-eyed susan), *Verbascum blattaria* (moth mullein), and *Echinacea purpurea* (purple coneflower). Central Riverside park is open daily.

We want *your* help!

The *Wildflower* newsletter welcomes article submissions about wildflower and other native plant projects in the United States.

Articles should be no longer than 2-1/2 typed, double-spaced pages. Please include your address, telephone number, and a brief biography. *Wildflower* will promptly acknowledge receipt of articles, but we cannot promise that they will appear in the newsletter. We also cannot be responsible for their return.

For more information, or to submit an article, please write to the editor at the address listed below.

Is this tax deductible?

IRS tax deduction guidelines change

Changes have been in the wind. Just when the members of the Development Office thought they knew everything about the tax-deductible portion of the Center's membership dues, they discovered they did not know quite everything yet.

Here is an updated explanation of the tax-deductible portion allowed for membership dues paid in 1990.

\$25 dues; the entire membership is tax-deductible.

\$50 dues; the entire membership is tax-deductible.

\$100 dues; \$91.50 is your tax-deductible contribution.

\$250 dues; \$236 is your tax-deductible contribution.

\$500 dues; \$486 is your tax-deductible contribution.

\$1,000 dues; \$986 is your tax-deductible contribution.

For additional information about the tax-deductibility of your membership or other donations to the National Wildflower Research Center, please call the Development Office at (512) 929-3600, or write to the Development Office at the address listed below.

Reap the Benefits: 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 \$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.

Please enter a membership in the category checked at left:

Name: _____

Address: _____

City/St./ZIP: _____

Phone: _____

Gift Membership: If you are giving this membership as a gift, please enter your name and address below.

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Address: _____

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Phone: _____

- Make your check payable to: NWRC
- Mail to: Membership, National Wildflower Research Center, 2600 FM 973 North, Austin, TX 78725-4201


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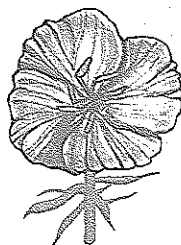
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