

Earthteaching News, Summer 1997

Earthteaching News

from the University of Wisconsin-Madison Arboretum

Earth Partnership Program

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Internet World Wide Web Discussion Forum

Do you want to find out what other teachers are doing with their school yard restorations? Do you need a quick idea about how to tie the prairie into a fourth grade unit on westward pioneer movement? Are you trying to get the kindergartners involved in the site preparation at your school? Do you want to find out if other teachers have tried to use older students mentoring younger ones while planting a restoration? Are you looking for good student led inquiry ideas using your prairie restoration? Do you want some technical advise about your restoration?

At the Earth Partnership Program we have set up a computer forum which will help you find and provide answers to these or other questions. The purpose of the forum is to facilitate dialogue on topics relating to the educational uses of school-yard based ecological restoration. It is intend for use by teachers, school administrators and others involved in restoration ecology as an educational tool. In the upcoming year we will also start a related forum for use by students.

The topics for discussion can be set by any user. We feel that they should range widely and cover such areas as new ideas for classroom activities, technical aspects of restoration ecology, building support in local communities, and working with school administrations. All questions and replies will be public and available for general perusal. As you will find when you explore the forum, it is possible to post both messages and replies within any topic. Although we as staff at the Earth Partnership Program will be regular visitors to the forum, we view this as an opportunity for direct sharing between all of those involved in school-based restorations.

Restoration Workshops Next Summer

The Earth Partnership Program will be starting a new workshop series next year and is now accepting applications. The program is open to any K-12 teacher interested in

establishing a native ecosystem at their school and using that restoration to teach throughout the school. Any teacher team (two teachers from the same school or district) may apply. The primary requirement is a long-term commitment to the project and the school restoration site. A two-week workshop will be held in late June 1998 and a second two-week workshop (with 4 additional teachers from the same school or district) will be held in late July of the following year (1999). For more information contact the Earth Partnership Program.

To gain access to the forum visit the Earth Partnership web site at <http://www.wisc.edu/arboretum/eductrs/eductrs.htm>. If you have questions about this forum please contact John Greenler at 608-262-9925, or via e-mail, <jmgreenl@facstaff.wisc.edu>.

Building a Sense of Place:

1997 Midwest Environmental Education Conference

This fall Madison will host the 1997 Midwest Environmental Education Conference. The conference will be held from October 16-19 at the new Monona Terrace Convention Center. This year's theme, Building a Sense of Place, reflects a need for people to gain perspective on local, regional and global environmental issues from a deeply rooted sense of place.

The conference will contain a track specifically dedicated to School Landscapes as Outdoor Classrooms. On Saturday morning Bill Lucas, the director of Learning Through Landscapes, will present a morning workshop. Learning Through Landscapes is an organization based in England that promotes improvements to the educational use and environmental quality of school grounds. Concurrent sessions focused on school yard habitat are scheduled for Saturday afternoon. Other workshops and field trips relating to school yard habitat will occur throughout the conference.

Other conference speakers include: Paul Gruchow author of *Journal of the Prairie Year*, *Necessity of Empty Spaces*, *Images of Home*, and *Travels in Canoe Country*; Dorothy Dunn, Program Coordinator of the Cooper-Hewitt Museum, the Smithsonian Institution's National Museum of Design; and Michael Caduto, internationally known storyteller, ecologist, educator and musician. Field trips and workshops will also focus on building a sense of place.

The conference should be an exciting and thought provoking experience and we would encourage you to attend if at all possible. To request conference registration materials, contact: Meta Reigel, Wisconsin Association for Environmental Education, 715-346-2796, mreigel@uwsp.edu, or <http://www.uwsp.edu/acad/wcee/midwest.html>.

Funding Opportunity for your School Yard Restoration

Lorrie Otto Seeds for Education Program

Wild Ones is a national not-for-profit educational organization devoted to the preservation of native plants and promotion of natural landscapes. For years, Wild Ones members and chapters have worked with schools and nature centers to plant and maintain natural landscapes in these centers of learning. In 1995, Wild Ones Board of Directors started the Lorrie Otto Seeds for Education Program to further such projects. The program seems like a perfect match for many of the schools that need some money to realize some aspect of their school restoration efforts. We encourage you to write for more information and an application.

Schools, nature centers and other places of learning may apply for a grant. Projects selected will probably be awarded at least \$300 and receive native plants and seed. Funding requests should focus on items necessary for enhancement and development of an appreciation of nature. Projects must emphasize involvement and increase the educational values of the site. Creativity in designing projects is encouraged. The use of native plants is mandatory. Children should be involved in the project, and the budgets must be clear on how the money is to be used. The most deserving applicants will be chosen on the basis of uniqueness, good planning, impact and wise budget use.

Completed proposals must be postmarked by November 15, 1997 and the money would be received the following winter. For more information, contact Wild Ones Natural Landscapers, Ltd., P.O. Box 23576, Milwaukee, WI 53223.

Student-Led Research on your Restoration Site

Restoration of native ecosystems on a school yard provides students with great opportunities for student-led research. Because ecological restoration is a young field with more questions than answers, students can share the excitement of exploring real scientific questions for which the answers are currently unknown. School site restoration furnishes a context that is grounded in basic science and math while at the same time provides a unifying framework for inquiry-based learning that can cut across all grade levels and disciplines. As students become more deeply involved in the restoration, questions begin to pop up: "What would happen if we didn't mulch our site?" "Should the site (or a given plant) be fertilized?" "Are there any new insects in our restoration?" "Which plants do butterflies like best?" Good, open-ended experimental designs can guide students to ask insightful questions on a wide range of topics. The resulting experiments can serve as individual student or cooperative group projects, as well as entire class, grade or school experiments. The investigations can be one time projects or can span across many years.

At the Earth Partnership Program, we have created some open ended experimental designs for use with school yard restorations. Below are some research ideas that we are developing. The Leaf Toughness Activity is written up in full on the following pages.

Keep watch on our website (<http://www.wisc.edu/arboretum/eductrs/eductrs.htm>) for details on these activities:

[How Much Does a Prairie Weigh?](#)

Investigating plant biomass in a prairie by clipping and weighing the vegetation.

[See What Transpires](#)

How do environmental factors affect plant transpiration rates?

[Pollination Examination](#)

How does a pollinator forage for nectar?

[Prairie Fire Study](#)

Investigating soil and air temperatures during a prairie burn.

[Biodiversity Studies](#)

How does the biodiversity of a prairie compare with a lawn or other ecosystem?

[What's in the Seed Bank?](#)

What kinds and numbers of seeds are stored in prairie soil?

[Microcompetition](#)

What soil conditions give prairie plants a competitive advantage over weedy plants?

[Spring Fever](#)

How is the onset of spring growth in a prairie related to air and soil temperatures?

[Sprouting Hypotheses](#)

Developing the ability to ask questions and formulate hypothesis.

[Lupine Germination Experiments](#)

How do factors such as seed age, ripeness and exposure to fire affect dormancy and germination of *Lupinus perennis* seeds?

[What Does a Seed Need?](#)

Determining germination requirements for a wide range of prairie species.

[Leaf Me Alone--I'm Tough](#)

How does leaf toughness or thickness related to environmental conditions, leaf age, plant habitat, herbivory or other ecological factor?