IDNR – Illinois Wildlife Preservation Fund Grant Report

Wildlife Preservation Fund Grant #07-005W
Dupo Jr. High School Attn: Susan Kautzer
600 Louisa Avenue
Dupo, Illinois 62239
618-286-3214 School number
Project Time Frame March 28, 2007 – June 20, 2007
Susan Kautzer 618-692-0334 funscience@hotmail.com (I will be out of the country until July 10th)

Project Objectives Met:

The objectives include creating a prairie area on our school grounds and providing students within our district access to the prairies area as an educational resource. Another objective was to create signing in the prairie area as well as in the woods identifying the native trees and plants.

Another objective was added as we received materials from within the community. That objective included building a viewing area for the prairie. A picnic table was set up on the patio area we created to allow for observations on the prairie and within the courtyard of the school itself.

Next year my students will create brochures of the prairie as part of their class work on learning about classification. The prairie area will also serve as a contrast to the non-prairie plants we have growing in the courtyard such as hosta, clematis, and chrysanthemums, etc. It will also be an area that can be used to talk about adaptations. The younger grade school children will also be able to come over and look at the plants as they study Illinois history and plants.

Completed Project Description:

We did create a prairie area; however the original location of the prairie changed and is located inside our courtyard area. A variety of over 30 prairie plants was included in the

prairie plot. We also installed an 8 ft by 9 ft patio area and refinished a donated table to use as a viewing area – rather than installing an arbor (since the location of the prairie area was change.).

Within the courtyard area a non-native bed was made to use in a comparison of the adaptations between native prairie plants and non-native plants. Students provided a minimum of 120 hours of work on the projects included in this grant. Additional manpower will be used to complete the mulching of the prairie area as well as other projects by two students, one working on their Girl Scout gold award and the other on his Eagle Scout project.

Some tree identification plaques were made and hung on the trees. Additional tree plaques will be made again this year for other trees. Identification plaques were also made to be posted in the prairie area and non-prairie areas to identify the plant life included in those areas. The existing area within the courtyard as well as the new prairie area will be mulched and made ready for the 100th centennial celebration of Dupo, Illinois. (September 2007) I think it is great that we have restored a prairie area that coincides with the 100th anniversary of a town that was once covered with prairie. We will have students giving tours of the courtyard prairie area. Students will then hand out brochures they create in the classroom to identify specific uses of the prairie plants.

Summary of Project Accomplishment:

Introduction:

The objectives of this project included having students establish a prairie area within our school grounds. It also included identifying and creating plaques for each species found within out courtyard area including the new prairie habitat. In lieu of an arbor over the outdoor classroom we instead installed a viewing area within the courtyard so observations of the prairie area could be made. Some long term objectives include creating brochures on the prairies plants which will be done this fall for the 100 year celebration of Dupo, as well as prairie tours to include the uses the natives had for the prairie flowers.

Materials:

Before we started preparing the site for planting my students and I took an inventory of tools we already had available to us. As a result the tools and equipment budget went

from $647.72 to $323.55. The difference of $324.17 was then used as part of the materials budget from 1067.70 to 1391.87. ($255.00 of this was used to have professional signs made for the flowering plants and bushes in the courtyard area- the students made the plaques for the trees in the Little Woods area.)

Tools & Equipment Purchased:
2 Kodiak 48 inch fiberglass round point shovels
1 garden weasel garden claw gold cultivator
5 fiskars bypass pruners
4 diamondback 8 inch poly shrub rakes
1 Ryobi 3/8 inch 7.2 V Cordless Drill w Accessories
2 soaker hoses
3 transplant cultivators
4 trowels
20 galvanized spikes
1 step edging tool
1 long handle tool organizer
1 pad sander with extended warranty

Additional materials & supplies purchased:
72 12 inch square stepping stones to create the viewing area
60 feet of quick edging to keep lake rocks in landscaped non-native comparison area
6 scoops of hardwood mulch to keep weeds down in the prairie area until it is established
10 scoops of red mulch in previously landscaped areas to rejuvenate the garden for the fall tour (This mulch has been paid for; however the red much will be put down in August so it is fresh for the tours.)
3 bags of cedar mulch
10 8 ft landscape timbers
2 clematis vines
6 scoops of lake gravel – for creating non-native planting areas for comparison
33 1 – 2.5 quart assorted native Illinois prairie plants
42 non- native plants in 1 qt containers
60 plant identification signs

Additional materials that were donated:
Sand and plastic for the viewing area
A garden rototiller to help till the garden area used to plant the prairie area
2 square shovels
one wheelbarrow
lawn sprinkler
buckets
sand for the patio viewing area
stain
polyurethane sealer
Outdoor table and four chairs

Wood & wood burner to make tree identification plaques

Discussion:

I had several students choose to work on the non-native comparison area and they volunteered close to 100 hours to remove sod, place the landscape timbers, plant the plants, install the edging and lay down the weed barrier and lake gravel. The students did a remarkable job and felt very good about themselves upon seeing the final project carried out. Due to a wet spring our project was somewhat behind schedule. In June I had two students, one girl working on a gold award and one young man working on his eagle scout project help cultivate and plant the prairie area. The young man is the one who suggested the patio area to be used as a viewing area.

At this time the signs are at the printers and will be ready when I get back into the country – the signs should be ready to be picked up and placed in the courtyard!
Also during the month of July Dan Davenport, the student working on his Eagle Scout project, will help by watering the prairie plants and weeding. In August my students will use the Illinois Prairie Guide I have to identify the prairie plants and label them. During the first week of school students will begin working on creating brochures for the garden tour.

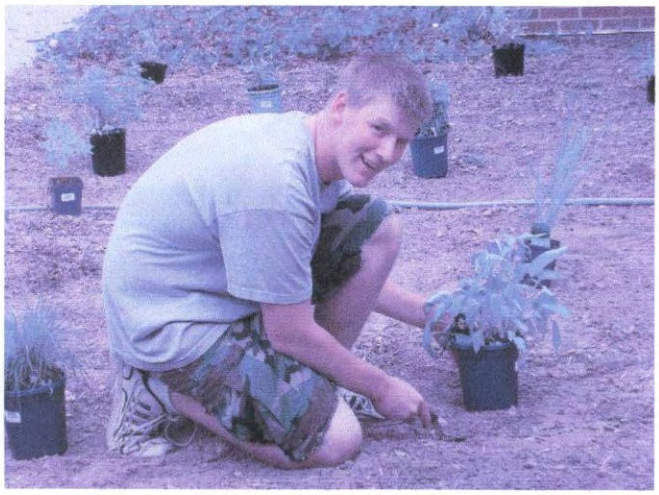
Summary:

I want the Preservation committee to know that even though this grant funded a project in 2007 it will be added to and enhanced as additional funding allows. The students really enjoyed working on this project and I am sure they are looking forward to seeing how everything has grown when they come back this fall. As an educator one of the best things I can do is provide opportunities for students to interact with nature give them a sense of connection so they can experience a positive feeling by interacting with their environment. I really do think this experience will be a connection students will be able to draw on as they continue into adulthood. Thank you for the opportunity to do this project at my school. I also know that other teachers – especially the art teacher will benefit from the plant still life's her students can sketch!

Images: of the prairie area
Site Preparation Before planting

Fred Planting a Whirled Milkweed

Dan laying out the plants



Me planting a prairie butterfly weed?

The Prairie is laid out with 30 varieties of native species plants ready to be planted
The picture I took of the planted prairie did not turnout.

Comparison Planting Area

Colton Installing Edging near the sidewalk

Dustin Wheeling in the Lake Rock

Non-prairie comparison Area Finished

Education Aspects:
Illinois Native Prairie Species Benefited by planting the follow plants:

Penstemon digitalis – *Bearded Foxglove* - hummingbirds
Petalostemon purpureum – *Purple Prairie Clover*- butterflies of all types
Rudbeckia hirta – *Black-eyed Susan* – song birds
Schizachyrium scoparium – *Little Bluestem* – song birds, adult butterflies, caterpillar small animals
Sporobolus heterolepis – *Prairie Dropseed* –song birds, small animals such as voles, mice
Amorpha canescens – *Leadplant* - butterfly larva, bees
Asclepias hirtella – *Swamp milkweed* – monarch butterfly larva food, song birds
Asclepias tuberose – *Butterflyweed* – adult butterflies of all types, humming birds, bees and pollinating insects, songbirds
Asclepias verticillata – *Whorled Milkweed* adult butterflies of all types
Aster oblongifolius – Aromatic Aster attracts butterflies & beneficial insects
Baptisia leucantha – *Cream False Indigo* – Bumble bee Queens
Baptisia australias - *Blue False Indigo* – Butterflies, birds
Coreopsis palmata – *Prairie Coreopsis* – song birds, adult butterflies, long tongued bees, short tongued bees, flies

Echinacea pallida – *Pale Purple Coneflower* – American goldfinches – house finches adult butterflies of all types, small mammals
Echinacea Purpurea – *Purple Coneflower* – American and house finches
Eryngium yuccifolium – *Rattlesnake Master* – attractive to long-tongued bees, short-tongued bees, wasps, flies, butterflies, skippers, moths, beetles, and plant bugs. The caterpillars of the rare Papaipema eryngii (Rattlesnake Master Borer Moth)
Liatris aspera – *Rough Blazing Star* – adult butterflies of all types, song birds, humming birds
Liatrus pychnostachya – *Prairie Blazing Star* – adult butterflies of all types, song birds including humming birds
Liatris ligulistylis – *Blazing Star* – adult butterflies of all types, song birds & humming birds
Solidago rigida – *Stiff Goldenrod* a variety of butterflies and bees, ants and birds
Tradescantia ohiensis – *Spiderwort* – sweat bees pollinate spiderwort
Zizia aurea - *Golden Alexanders* black swallowtail butterflies
Silphium lacinatum – *Compass Plant* song birds
Geum trioflorum – *Prairie Smoke*
Aquilegia Canadensis – *Wild Columbine* - food for humming birds
Coreopsis lanceolata – *Sand Coreopsis* – songbirds, pollinators – long tongued and short tongued bees
Callirhoe involucrate - *Purple Poppy Mallow* native bees
Oenothera macrocarpa - *Missouri Primrose*- hummingbirds
Rudbeckia fulgida *Orange Coneflower* adult butterflies of all types, grosbeaks and sparrows
Gallairdia aristata *Blanket Flower* – butterflies

As you can see a wide variety of wildlife including small mammals, insects and songbirds of many types will benefit from the implementation of this prairie area. It will also provide an interesting contrast to the non-native plant area.

I already have envisioned using the prairie area to teach about classification, adaptations, classification, succession and one project idea I have will have students research the flowers and their uses as well as their scientific names and the wildlife benefits they provide. This will in turn be turned into a brochure to be used at the Centennial celebration. I will also have the students use this as a way of journaling their observations – including drawings, poetry, etc. This will also be a good way to discuss conservation of resources as native plants use less water and we could then get into what does an ecosystem entail. I see this as a very exciting experience for my students to also make those lifelong connections with their environment that will stay with them throughout their lifetime. The students will also help care for the plants and make suggestions for other plantings we may want to have in the future. I see the students also choosing to use prairie seeds to see if they could propagate them for a science fair project.

Pictures of the Illinois Prairie plants that we planted


White Beards Tongue


Black-Eyed Susan


Rough Blazing Star


Prairie Blazing Star


Wild Columbine


Pale Purple Coneflower


Lanceleaf Coreopsis


Purple Coneflower


Blue False Indigo


Butterfly Weed


Purple Poppy Mallow


Stiff Goldenrod


Purple Prairie Clover


Missouri Primrose


Prairie Smoke


Little Bluestem

Rattlesnake Master

Compass Plant

Blanket Flower

Lead Plant

Golden Alexander

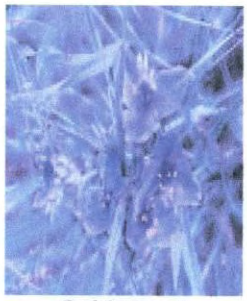
orange coneflower

Cream False Indigo

Aromatic Aster

Prairie Drop Seed

Prairie Coreopsis



Spiderwort

Swamp Milkweed

Whorled Milkweed