



School Nature Area Project

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Awareness of many social issues is stressed at a much earlier age, and environmental education and land stewardship have become an integral part of many school curricula. One program that allows Minnesota schools to actively learn about and appreciate our natural landscapes and habitats is the School Nature Area Project (SNAP). SNAP began in 1991, and is a cooperative project between St. Olaf College and school communities throughout the state of Minnesota. St. John's University in Collegeville and the University of Minnesota Cloquet Forestry Center also cooperate (Legislative Commission of Minnesota Resources, 1998). The purpose of this program is to use local area nature centers and areas near schools to benefit the environment and support environmental education through grants, training, and resource support (<http://www.stolaf.edu/other/snap/welcome.html>).

Program Description

SNAP offers two different types of programs for schools to be involved with. These are Partnership Grant and Project Grant programs. The partnership program allows for a three year relationship between the school and SNAP whereas the project grants are given for only one year. Both of these programs aim to improve wildlife habitat and plant native Minnesota vegetation. This is done through projects such as prairie restorations and gardens, wetland restorations, woodland plantings, and native plant gardens. The following table provides a breakdown of some of the projects that 1996-1997 SNAP schools worked on (SNAP Newsletter, Spring 1996).

Project Partnership Schools Project Schools

-trail construction 2 0

-wetland/pond 3 6

-prairie plantings/ 2 15

garden

-trees/woodlands 3 8

-native vegetation 0 4

-nesting boxes,etc 0 2

With the project grants, schools receive \$500-\$1000 for project expenses to plant native vegetation and improve wildlife habitat. About 20-30 grants are awarded to schools each year. Projects include native plant restoration specific to the region and habitat creation and

preservation. Habitat restoration can be done by building feeding stations and developing nesting platforms (<http://www.stolaf.edu/other/snap/progrant.html>).

Stillwater Area High School is an example of one of the project schools. They have a 55-acre nature area adjacent to their school with a woodland, two ponds, and a pasture land. In 1996 eight acres of the pasture was restored to prairie. There was a lot of support within the community. For example, a farmer mowed the site before the school grounds manager applied herbicide. The Bayport Fire Department burned the site, and the manager of the Lake Elmo Park Reserve helped with disking and planting the prairie. A site assessment was done by Prairie Restorations, Inc. to see what species of grasses and forbs should be planted in their site.

Students are observing and recording the species of birds and mammals that are present on their restored area. Some examples of the animals that they have observed are Great Horned Owls, least weasels, fox, and Red-tailed Hawks (<http://www.stolaf.edu/other/snap/prosti97.html>).

Unlike the project grants, the partnership grants enable SNAP to provide more assistance in site planning and development, ecology and environmental education, curriculum planning and development, leadership training, and technology applications. Teachers from the partnership schools participate in four in-service workshops that focus on these aspects. Teachers are able to develop a stronger ecological background so that their projects will be more effective (<http://www.stolaf.edu/other/snap/pargrant.html>).

Program Administration and Financing

The SNAP director is Gary B. Deason. The staff includes the director, office assistant, site planners, ecologists, technology specialist, and a post-graduate intern (Legislative Commission of Minnesota Resources). The Blandin Foundation, Legislative Commission on Minnesota Resources from the Minnesota Environment, and the United States Fish and Wildlife Service have provided funding to SNAP (Legislative Commission of Minnesota Resources).

The money provides sources for the grants, as well as the ability to create three regional eco-demonstration sites, and money for educational workshops. Since SNAP does not currently have any demonstration sites of actual restorations for teachers to learn from, the Minnesota legislature recently provided money to create these. St. John's University, St. Olaf College, and the University of Minnesota Cloquet Forestry Center will provide sites for restorations that teachers can observe and assist with. St. John's will restore five acres of Oak savanna. St. Olaf will have a 25-acre prairie, a 50-acre woodland, and a native plant garden to attract insects and butterflies. Cloquet will work on diversifying woodlands while instructing teachers how to properly plant and care for trees (LCMR, 1998).

Encouraged Practices

The grants that SNAP receives from the Minnesota legislature and the US Fish and Wildlife Service are for the purpose of enhancing wildlife habitats. Native species do this best, so SNAP only funds projects that comply with the practice of planting native species. Schools can receive help on how to best determine what types of plants are native to their specific area. For example,

Prairie Restorations, Inc. is involved with many of the school projects. They will do an assessment of the site and recommend species that are best suited for and native to that specific area.

Along with what plants should be planted, the practice of weed control is important in every restoration project. There is no specific standard that SNAP schools must follow in weed control, but the SNAP staff, as well as the native plant vendors do give schools advice on how to manage weeds. Many schools prepare sites by cultivating. When an herbicide is used, SNAP recommends glyphosphates like Round-Up that biodegrade rapidly (Bezanson, personal communication).

Project Selection

Over the last few years, the number of grant applications has increased. Thirty to forty-five schools benefit from both the project and partnership grants each year. When deciding what schools are accepted, the staff has certain criteria. From the application, they look for evidence of planning and background research, community involvement, student involvement and educational value, and use of appropriate native plants (Bezanson, personal communication). Projects must be aimed at native plantings and/or wildlife enhancement, and the project must be set up to create an educational impact (Lindquist, personal communication).

Schools must demonstrate that they have a vision for why they are interested in working with a nature area. There must be a base of support within the school setting that will sustain their work (Lindquist, personal communication).

The staff also focuses on evidence that the project will be implemented. There must be sufficient knowledge and skills available to create a successful project. This information is not always easy to come by for teachers, so the SNAP staff makes presentations at professional meetings where they help teachers determine what plants are native to their area and different ways of implementing projects (Bezanson, personal communication).

Another criterion that is involved in the application approval is the feasibility that a project will be completed. Therefore, a smaller project with greater feasibility might be chosen over one that may be more extensive. The fact that an application might deal with an actual restoration rather than a prairie garden does not play into the decision process.

Measuring Success

SNAP does not have any specific evaluation protocols in place (Bezanson, personal communication). The staff does look at whether or not a project is still in place and if it is being used after the initial year. They look at how the schools have been able to deal with maintenance and what they have done when problems have come their way. Some of the most successful projects continue to grow and involve more students and community members every year (Bezanson, personal communication).

Schools do file an interim and a final report the year after they begin their project describing what they have done. SNAP has also contracted an independent evaluation firm to complete formative and summative evaluations of the program (Lindquist, personal communication).

Students also do a form of measuring success when they look at the species that their sites attract. For example, students at Crystal Lake Elementary School keep journals on observations of specific bird species (<http://www.stolaf.edu/other/snap/par97cry.html>). At Stillwater Area High School students are doing a migratory bird banding study and a study that involves small mammal live trapping to look at rodent diversity and rodent populations (<http://www.stolaf.edu/other/snap/prosti97.html>). These studies measure the success of attracting wildlife to the restored sites.

Oak Hill Community School in St. Cloud is an example of how a SNAP project has had an educational impact on their students. Third grade students studied habitat throughout the year and researched the types of plants that should be planted to their site to increase habitat diversity. As part of a plant unit, first grade students planted 500 prairie seedlings. Fourth grade students will document different insects that use the prairie, and fifth grade students are receiving hands-on experience in their study of birds. This project has had a great educational impact on this school, and it demonstrates one aspect of success. (<http://www.stolaf.edu/other/snap/prooak97.html>).

Conclusion

SNAP is creating a strong interest within schools and school children in native plant and habitat communities. The projects that each individual school manages are not large, but given the fact that the program has been around since 1991, and 30-45 schools each year are involved in a project, a large amount of land has been planted into native vegetation and habitats.

This program differs from many other restoration programs in that school children are involved. They are involved in the planning, the implementation, and the management. They observe the results of their work through their school curriculum. By going through this entire process, they are able to gain a much greater appreciation for our native landscapes and plants. This exposure and understanding of land stewardship and restoration will enable them to develop better and more effective restorations when they are older.

Literature Cited

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2. Lindquist, Bill <lindquis@stolaf.edu> Environmental Education Specialist, Interview, April 24, 1998.
3. Legislative Commission of Minnesota Resources Work Program Update , Laws 1997, Chapter 216, Section 15, Subd 13(a), February 1, 1998.

4. "School Nature Area Project Snap Shots". Vol. 4, No. 3. April, 1996, pgs 1, 6.

5. School Nature Area Project Website <<http://www.stolaf.edu/other/snap.html>> April 8, 1998
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