



LEAF Report

January 1, 2012 - June 30, 2013

Enriching Students. Sustaining Forests.

LEAF
Wisconsin Center for
Environmental Education
UW-Stevens Point
Stevens Point, Wisconsin

715-346-4956
leaf@uwsp.edu
uwsp.edu/cnr/leaf



“Between every two pines is a doorway to a new world.”

- John Muir

Strategic Direction

Vision

LEAF envisions inspired and informed citizens actively engaged in sustaining healthy forests and communities.

Mission

LEAF's mission is to integrate learning in and about Wisconsin's forests into K-12 schools to provide the knowledge, skills, and ways of thinking necessary to sustain our forests and communities.

Values

These are the core values that directly underlie the LEAF Program. They provide guidance in delivering program services and products, and directions we pursue as a program. We desire to build a sense of shared values with our audiences as they interact with the LEAF Program. We believe:

- Humans are dependent upon and connected to Earth's systems
- Forests are life support systems for life on the Earth
- Wisconsin forests can be managed sustainably for economic, ecologic, and social benefits
- Forestry education is integral to K-12 learning, across all grades and subjects areas
- Healthy communities are dependent upon informed and engaged citizens

Outcomes

Outcomes are the long-term impacts that we want to have on LEAF's audiences. We believe that accomplishing these outcomes will help to achieve our vision.

Through the services and resources of the LEAF program, we strive to accomplish the following outcomes with our audiences:

- Instill a strong sense of place and connection to human and natural communities
- Inspire a sense of appreciation, awe, and respect for forests and other ecosystems
- Increase teachers' and students' forest literacy
- Develop an understanding of forest management decisions, principles, issues; and,
- Encourage individual and community action in sustaining forests





“I have gone back to the classroom energized and ready to try all the new ideas.” - Wisconsin K-12 Educator

Forestry Education

LEAF’s Integrated Approach to Forestry Education

LEAF works to fully integrate its and its partners’ services and resources to provide a comprehensive and holistic approach to forestry education. That is, LEAF views forestry education as a path on which teachers and schools journey.

Teachers are LEAF’s primary audience. Developing teachers’ forestry literacy is an important key to expanding forestry education in schools. No single experience is going to result in their forestry literacy.

Teachers may enter the forestry education journey from multiple points, e.g., developing a school forest, participating in a workshop, accessing online resources. LEAF’s goal is to help them continue their journey by offering additional resources, professional development, support, and networking opportunities. LEAF strives for our programmatic areas to be interrelated components of a systems-based approach to forestry education.

As we move ahead, we foresee a greater depth and diversity of LEAF services and resources within our priority programmatic areas to accomplish this.

Program Overview

LEAF advances forestry education in Wisconsin schools

In 2001, the forestry community came together to request a comprehensive program to support forestry education in Wisconsin’s schools. The result was legislation that established the LEAF Program as a partnership between the DNR – Division of Forestry and the Wisconsin Center for Environmental Education in the College of Natural Resources at UW-Stevens Point. LEAF provides teacher professional development, curriculum resources, support for school forests and outdoor classrooms, and teacher networking to enhance learning in and about Wisconsin’s forests.





"I'm consistently impressed with the quality and usability of the trainings and resources. Thank you for your work!"
- K-12 Educator

Program Highlights

- LEAF was awarded the **Organizational Relations Award** by the Wisconsin Association of Agricultural Educators (WAAE) in appreciation for faithful service, leadership, and cooperation given to the WAAE in promotion, education, and furtherance of agricultural education.
- LEAF provided professional development for 1,118 educators between January 1, 2012 and June 30, 2013. Since 2003, 5,660 educators have participated in LEAF professional development.
- The Goodman-Armstrong Creek School District Partnership was continued through 2013, for the fourth full year. This partnership improved math, reading, and writing scores through innovative programs incorporating the environment. In the spring semester of 2012 LEAF provided one in-service and 4.5 days of model teaching per month. During the 2012-13 school year LEAF provided one in-service and 1.5 days of model teaching quarterly. In May of 2012 and May of 2013 LEAF coordinated an activity where all living species of the school forest were documented with the help of area specialists and students working together, called a Bio Blitz. This activity allows teachers and students to meet and interact with area natural resource professionals and provides students time to explore career options available in Wisconsin's Northwoods.
- Fifteen new school forests were registered for ten school districts in Wisconsin. Currently there are 398 school forests registered in Wisconsin.
- Support was provided to 13 schools/districts developing outdoor classrooms: Salem Elementary, Badger Rock Charter School (Madison), Stettin Elementary (Wausau), Lake View Elementary (Madison), Menominee Indian High School, Eagleville Charter School (Mukwonago), Jefferson Elementary (Stevens Point), Goodman-Armstrong Creek, Highland, Belmont, Pulaski, Wisconsin Rapids, and Wausau.
- The LEAF website was updated and has received over 1,000,000 pageviews since August 2012.
- The School Grounds program website was created to assist teachers who are interested in furthering the use of their school grounds as a context for learning.
- The LEAF School Grounds program successfully piloted its workshop in 2012.
- A productive relationship with Lake View Elementary School developed; LEAF staff visited the school on several occasions modeling ways in which teachers can use their school grounds for educational purposes.
- School forest consultation services reached 292 individuals across the state.
- A new LEAFlet email newsletter format was created and was distributed to approximately 3,000 contacts biweekly.

LEAF provided outreach services to 1,426 individuals between January 1, 2012 and June 30, 2013. The 144 outreach experiences included public and student events, school forest outreach, and professional exhibits.





Goals, Programmatic Areas, Strategic Priorities, and Achievements

Goals toward outcomes:

- Inspire teachers to teach about and in Wisconsin's forests
- Provide teachers forestry knowledge, skills, and resources
- Increase teachers' integration of acquired knowledge and materials into their curriculum
- Provide tools and resources for teachers
- Communicate and impart important Wisconsin forest concepts from conceptual frameworks:
 - What is a forest?
 - Why are they important?
 - How do we sustain?
 - What is the future?
- Build and maintain relationships with schools, community members, and resource professionals to support school use of forests to teach and to teach about forests
- Work with teachers, administrators, and community members to model and support integration of forest education into school curriculum, culture, and facilities
- Support the development and utilization of outdoor learning spaces
- Connect educators, resource professionals, and partners with one another and LEAF to share resources, opportunities, successes, and ideas to increase their effectiveness in forest education
- Maintain LEAF staff connection to students, teacher responsibilities/reality
- Model teaching tools and strategies for teachers
- Provide outdoor learning experiences for students
- Measure effectiveness in achieving outcomes and program objective
- Collect feedback and data to inform program development
- Communicate program effectiveness and justify LEAF to those who fund the program and forestry education stakeholders



2012 School Forest Award Winners. Top: Penny Bohringer, Elementary School Teacher, Boscobel; Cindy Damrow, School Forest Coordinator, D. C. Everest School District; Dawn Ertl, High School Teacher, Butternut. Bottom: Wade Petitt, Community Volunteer Granton; Mike Rankin, Retired WDNR Forester; Mike Toney, Community Volunteer, Southern Door Schools.



“I just want to reinforce the quality staff and resources that I have come in contact with and would love to become involved professionally in the LEAF Program.”

- Wisconsin K-12 Educator

Teacher Professional Development

Strategic Priorities:

- Diversify and provide courses, workshops, and in-services to holistically address professional development goals and focuses, and program outcomes
- Offer LEAF courses 740, 741, 742, 743, and 744
- Engage all LEAF staff and adjunct faculty in collaborative course development
- Explore the development of teacher exchange opportunities – nationally and internationally
- Provide teachers with outdoor experiences

Achievements:

- Twenty-six in-services were provided at 16 schools. School forest and school grounds in-services were provided at Lake View Elementary in Madison, school grounds in Florence, Goodman-Armstrong Creek, Highland, Salem, and Wisconsin Rapids, and school forests of Chilton, Newman Catholic, Manitowoc, and Trinity Lutheran.
- School Grounds workshops were conducted in Green Bay, Pulaski, Salem, Wausau, and Wisconsin Rapids.
- Twelve LEAF courses were taken by 93 participants. These courses included a new Tree ID course, NRES 742 (School Forest Programs and Administration), a new Enhancing School Forest Education course, Greening Your Math, NRES 743 (online), and NRES 740 (standard LEAF course).
- A new school forest course called Enhancing School Forest Education was developed, offered, and attended by eight people.
- The Forests For Every Classroom (FFEC) program was completed with participants from four schools. FFEC is a year-long professional development experience for teams of teachers that focuses on the use of forests in service-learning. The teachers met on 11 days throughout the year. Topics included forest ecology, forest management, climate change, phenology, invasive species, and service-learning.
- LEAF presented to 85 teachers about site assessment and use of outdoor classrooms at Green and Healthy Schools workshops in Fall Creek and Green Bay.
- LEAF ad hoc faculty and LEAF staff met to outline a new method for teaching NRES 740, the introductory LEAF course. The course is now presented as a hybrid online and face-to-face course. It was piloted in spring of 2012.

- LEAF provided 57 professional development experiences for 1,118 educators between January 1, 2012 and June 30, 2013. Professional development included in-services, courses, statewide workshops, school forest workshops, and conference presentations. Since 2003, over 5,600 educators have participated in LEAF professional development.

“Really helped a lot for our initial school forest plan writing...couldn't have done it without the help and assistance of your organization.”

- Wisconsin K-12 Educator



Curriculum Resources

Strategic Priorities:

- Compile audience specific curriculum packages (e.g., high school math, environmental history) of existing LEAF and other curriculum materials. Engage teachers in developing these packages
- Continuously winnow existing non-LEAF forestry education resources to provide LEAF-recommended curriculum materials on a variety of subjects and topics
- Evaluate need for new and additional curriculum materials; develop new materials as deemed necessary

Achievements:

- LEAF resources and materials continue to be distributed to all workshop, in-service, and presentation participants. Teachers participating in LEAF courses receive hard copies of their grade-specific unit, the “Wildland Fire” lesson guide, the “Urban Forest” lesson guide, and a CD-ROM of the LEAF lesson guide materials.
- All LEAF curriculum resources, including printable lesson guides and audio-visual resources, are available on the new LEAF website; LEAF materials have been viewed over 5,000 times since the site’s launch in August 2012.
- Lessons specifically focused on K-12 curriculum concepts are included on the school grounds portion of the website and available for teachers to use.
- The Forestry Education Kits were used by 53 classrooms.
- Use of LEAF curriculum resources was requested by UW-Extension for use in the Wisconsin Master Naturalist volunteer training. Lesson materials on tree identification and forest communities were provided to approximately 200 people between January 1, 2012 and June 30, 2013.
- LEAF continues to distribute the Wisconsin Forest Tales book and full kits to elementary teachers throughout the state.
- Working with eleven K-12 teachers, LEAF curriculum materials were correlated to Common Core Mathematics, Common Core English Language Arts, and Next Generation Science Standards.
- Development began on Forest Health Kits to be used by teachers as a joint project with a Wisconsin DNR-Division of Forestry Forest Health Specialist.



- LEAF was awarded the 2012 Organizational Relations Award by the Wisconsin Association of Agricultural Educators (WAAE) in appreciation for faithful service, leadership, and cooperation given to the WAAE in promotion, education, and furtherance of agricultural education.



“I really like the resources provided by LEAF. It has allowed me to enhance our Forestry Curriculum over the past several years.”

- Wisconsin K-12 Educator

Consultation

Strategic Priorities:

- Respond to requests for assistance in all of our priority program areas
- Search out and explore opportunities to implement integration models (e.g., grade-specific, subject-specific, school-specific integration)
- Continue the Goodman-Armstrong Creek LEAF School of Excellence as a model of achieving our outcomes and look for opportunities to expand

Achievements:

- LEAF continued its strong partnership with the Goodman-Armstrong Creek School District. The partnership improved students’ skills in the subjects of math, reading, writing, and career exploration utilizing connections to their community and the environment.
- LEAF staff served on the Forest Exploration Center charter school planning and site planning teams.
- Support was provided to 13 schools developing outdoor classrooms.
- School Forest Consultation services were provided to 185 individuals educators working with their registered or potential school forest properties throughout Wisconsin. Work was done in conjunction with 35 foresters from the Wisconsin Department of Natural Resources (WDNR), 20 other WDNR individuals, and an additional 52 partnership/outreach opportunities that are not captured in the school district, school forest, and DNR forester totals. There were 109 registered school forests served between January 1, 2012 and June 30, 2013.
- School forest and community forest registration assistance was provided to 35 schools and 2 municipalities. Fifteen new school forests in 10 districts and 2 new community forests have been registered since January 2012.

Networking

Strategic Priorities:

- Provide in-person networking opportunities such as LEAF field day and the school forest summit
- Implement online networking site to enhance sharing of resources, models, and ideas in forest education
- Work with local, state, and federal government agencies to secure funding for tribal, urban, and rural classrooms
- LEAF continued its long-standing relationship with Wisconsin’s agricultural educators providing guidance and answering forestry and horticulture questions

Achievements:

- A field trip to the Southern Door School Forest was offered as part of the Wisconsin Association of Environmental Education’s (WAEE) Annual Conference.
- LEAF’s close relationship with Wisconsin’s agricultural educators continued, providing leadership, consultation, and educational support.
- LEAF participated in 61 outreach events that reached 1,234 people.
- LEAF Field Day was held in Wausau for 25 people who toured three different outdoor classrooms.
- LEAF worked collaboratively with the U. S. Forest Service and the Environmental Protection Agency to submit grant proposals to integrate tribal, urban, and rural classrooms.



Outdoor Classrooms

Strategic Priorities:

- Support school forest development and utilization and explore additional services as needed
- Ensure a strong connection between these programs
- Implement the Greening School Grounds program to develop outdoor classrooms on school grounds in all schools. Use the School Forest program as a model in providing services. Ensure a strong connection between these programs

Achievements:

- School Forest consultation services were provided to 185 educators working with 109 registered school forests throughout Wisconsin. Work was done in conjunction with 35 WDNR foresters, 20 other WDNR individuals, and an additional 52 partnership/outreach opportunities that are not captured in the school district, school forest, and DNR forester totals. Seventeen schools were assisted in the development and approval of their school forest education plans. There were seven new education plans approved and there are a total of 82 approved school forest education plans in the state.
- School Forest Awards were presented to six recipients from throughout the state for their contributions to the school forest program. The award winners include: teachers Cindy Damrow (Twin Oaks School Forest, DC Everest School District), and Penny Bohringer (Paul Brandt School Forest, Boscobel), Dawn Ertl (Butternut School Forest), community members Mike Toneys (Southern Door School Forest, Brussels) and Wade Pettit (Granton School Forest), resource professional Mike Rankin (Retired WDNR Forester, Chippewa County).
- The School Grounds program grew through the development of the website, offering workshops, providing classroom lessons for teachers, and continued assistance with outdoor classroom development.
- Support through the school grounds program was provided to 13 schools developing outdoor classrooms: Salem Elementary, Badger Rock Charter School (Madison), Stettin Elementary (Wausau), Lake View Elementary (Madison), Menominee Indian High School, Eagleville Charter School (Mukwonago), and Jefferson Elementary (Stevens Point) schools; also, Goodman-Armstrong Creek, Highland, Belmont, Pulaski, Wisconsin Rapids, and Wausau districts.
- Two school forest courses were conducted with educators last summer. These courses include NRES 742: School Forest Programs and Administration and a new Enhancing School Forest Education course.
- Presentations to partner organizations for both school forests and school grounds included three sessions at the National Green Schools Conference, Wisconsin Association of Environmental Education's Annual Conference, Wisconsin Society of Science Teachers, work with the Wisconsin Environmental Education Board, Sustain Dane, Wisconsin Association of Agricultural Educators, and Department of Public Instruction workshops.
- New school forests were registered in Iola-Scandinavia, Riverdale, Wisconsin Heights, Clintonville, Mount Horeb, LaCrosse, Cedarburg, Highland, and Bonduel school districts.



“Thank you for all you do to help provide quality experiences for children in the great outdoors!”

- Wisconsin K-12 Educator

Student Activities

Strategic Priorities:

- Maintain the annual FFA Career Development Event (CDE) until a suitable partnership can be developed

Achievements:

- The FFA Career Development Event was offered for 80 students.
- Model teaching was provided to 47 different classrooms; many multiple times in different subject areas: Eau Claire, Middleton, Stoughton, Eagleville, Goodman, Granton, Belmont, Jefferson, Menominee Indian School, Mosinee, Highland, Harborside Academy (Kenosha), Westby, and Appleton.
- LEAF partnered with Wisconsin Society of American Foresters to hold the Forestry Site of the Wisconsin Science Olympiad.

Evaluation

Strategic Priorities:

- Conduct School Forest Annual Survey, professional development evaluation, post-professional development survey, and informal evaluation tools
- Modify existing evaluation efforts to assess program toward meeting program outcomes
- Engage outside evaluators where appropriate to evaluate effectiveness of the program and strategies relative to achieving outcomes
- Strengthen the evaluation of the effectiveness of the Goodman-Armstrong Creek “LEAF School of Excellence”

Achievements:

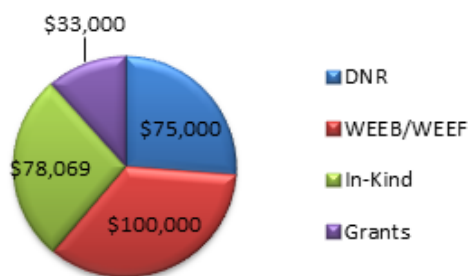
- LEAF utilizes a variety of ongoing evaluations of resources and services. Surveys are provided to participants at the end of all professional development and the forestry education kits and curriculum materials contain evaluations. The results of the evaluations are reviewed periodically to determine if changes are needed.
- The annual school forest surveys were conducted in May of both 2012 and 2013. Detailed results for the 2011-2012 school year can be found in the LEAF School Forest Program annual report. Seventy-nine individual schools or districts provided responses to the survey out of 206 individual schools or districts that received the survey. Responses were received from 78 public school districts and 1 private school. This is a 38% response rate.
- A LEAF post-professional development evaluation was sent to 275 active email addresses for individuals who had a LEAF professional development experience between January and December 2011. The survey information was completed by 67 individuals. This is a 24% response rate. A full report is available upon request.
- The school forest program also partnered with Project Learning Tree (PLT) to survey school forest educators about the extent of PLT use in school forests.



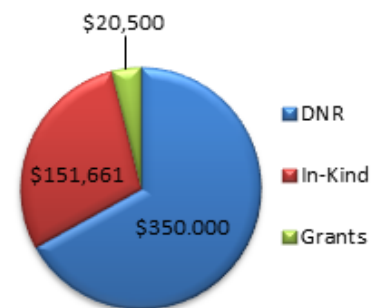
Budget

The LEAF budget below covers an 18-month period (January 1, 2012 to June 30, 2013). As of FY13, LEAF's base funding is legislated and comes through the DNR - Division of Forestry. Starting July 1, 2012, through legislation, \$350,000 is annually provided from the forestry account for the LEAF Program. UW-Stevens Point and the WCEE provide in-kind support for the program and additional funds are generated through grants, contracts, and program revenue.

**LEAF Budget - 6 Months
January 2012 - June 2012**



**LEAF Budget FY13
July 2012 - June 2013**



LEAF is a partnership program. We thank all of our partners from the past 18 months.

American Forest Foundation
 - Project Learning Tree
 Cofrin Center for Biodiversity at the
 University of Wisconsin - Green Bay
 Earth Partnership for Schools
 Goodman-Armstrong Creek School District
 Trees For Tomorrow
 United States Forest Service
 University of Wisconsin - Extension
 Waupaca County Cooperative Extension
 Will Steger Foundation
 Wisconsin Association for
 Environmental Education

Wisconsin Department of Natural Resources
 Wisconsin Department of Public Instruction
 Wisconsin Environmental Education Board
 Wisconsin Environmental Education Foundation
 Wisconsin FFA
 Wisconsin Green & Healthy Schools Program
 Wisconsin Nursery Association
 Wisconsin Project Learning Tree
 Wisconsin Society of American Foresters
 Wisconsin Society of Science Teachers
 Wisconsin Association of Agricultural Educators
 Sustainability Forest Resource Management
 Network
 UW-Stevens Point
 UWSP College of Natural Resources



“The FFEC professional development was a great opportunity and I recommend schools trying to implement or who are already implementing EE into their schools and curricula to participate in the professional development opportunity.”

- Wisconsin K-12 Educator

LEAF Staff

Sarah Gilbert • Program Coordinator

Chris Kuntz • Outreach Specialist

Gretchen Marshall • Forestry and Outdoor Education Specialist

Dan Martinson • Communications and Networking Coordinator

Susan Schuller • WCEE Program Coordinator

Jeremy Solin • Director

LEAF Advisory Committee

Miles Benson

The Forest History Association of Wisconsin, Inc.

Maggie Bishop

Trees for Tomorrow

Scott Bove

UW-Madison, Department of Forest and Wildlife Ecology

Randy Champeau

Wisconsin Center for Environmental Education

Rebecca Diebel (previously Gass)

Wisconsin Department of Natural Resources -Division of Forestry

John Duplissis

UW-Stevens Point, College of Natural Resources

Cindy Edlund

Crandon School District

Sally Ellingboe

Retired, Stevens Point School District

Mark Goings

Eau Claire Area School District

Earl Gustafson

Wisconsin Paper Council

Kirsten Held

Wisconsin Department of Natural Resources -Division of Forestry

Jeff Hicken

Wisconsin Department of Public Instruction

Janet Hutchens

Wisconsin Department of Natural Resources

-Project Learning Tree (PLT)

Mike Johnson

LaCrosse Area School District

Jeremy Koslowski

Wisconsin County Forest Association

Jennie Lane

Wisconsin K-12 Energy Education Program (KEEP)

Jan Lehrer

Wisconsin Woodland Owners Association

Wendy McCown

Wisconsin Department of Natural Resources -Division of Forestry

Tim Peterson

Madison Metropolitan School District

Victoria Rydberg

Wisconsin Department of Public Instruction

Dennis Schoeneck

Forest Enterprise Products, Inc.

Chris Tall

Wisconsin Department of Natural Resources

-Project Learning Tree (PLT)

Barb Thompson

West Salem School District

Mary Wendorf

Merrill School District

Les Werner

UW-Stevens Point, College of Natural Resources

Sherry Wise (previously Klosiewski)

Wisconsin Department of Natural Resources

-Bureau of Parks and Recreation

Dennis Yockers

Wisconsin Center for Environmental Education

Ron Zalesny, Jr.

US Forest Service, Northern Research Station



Wisconsin Center for Environmental Education
College of Natural Resources
University of Wisconsin - Stevens Point