



LEAF Program Annual Report

July 1, 2013 - June 30, 2014

Enriching Students. Sustaining Forests.

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



LEAF-Wisconsin's K-12 Forestry Education Program
College of Natural Resources
University of Wisconsin - Stevens Point

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Program Highlights

- LEAF provided 40 professional development experiences for 640 educators in 2013-14. Professional development includes in-services, courses, statewide workshops, school forest workshops and conference presentations. Since 2003, more than 6,000 educators have participated in LEAF professional development.
- Thirty Project Learning Tree (PLT) workshops were held at schools, nature centers, early childhood centers, and colleges/universities and conferences reaching 569 people.
- School Forest Consultation services were provided to 220 individuals from 83 different school districts throughout Wisconsin. This work served 76 existing school forests and potential school forests and was done in collaboration with 40 Wisconsin Department of Natural Resources (DNR) employees, including 19 foresters in 21 different counties.
- Nineteen schools were assisted in the development and approval of their school forest education plans. There were four new education plans approved and a total of 86 approved school forest education plans in the state.
- The School Grounds program continued and requests for workshops and assistance with school site visioning helped expand the scope of the program.
- Staff attended the Wisconsin Governor's Council on Forestry meeting, Governor's Forest Economic Summit, and the Wisconsin Sustainable Forestry Initiative Implementation Committee meetings.
- The FFA Career Development Event was offered to 100 students.
- LEAF curriculum materials were distributed to 104 teachers. 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. LEAF lesson guide CD-ROMs were also distributed at four Green & Healthy Schools workshops.
- Presentations on school forests and school grounds were offered at three state conferences; LEAF participated in 40 other outreach events reaching 1,916 people.
- LEAF's electronic newsletter, the LEAFlet, was distributed to approximately 5,000 contacts two times per month.
- The Goodman-Armstrong Creek School District partnership continued through 2013-2014 school year. The partnership strove to improve students' math scores through innovative programs to teach these subjects by incorporating their environment, both built and natural. LEAF provided two days per quarter, one day with model teaching and one day to include a six hour in-service. LEAF coordinated the 3rd annual BioBlitz where students and natural resource professionals document the species of the school forest. This activity provided model teaching for teachers and students, and career explorations with natural resource professionals. Groundwork was laid for a Log-a-Load event with the sale preparation being done by students.

Front cover: DNR NR Region Team Supervisor Craig Williams (left) and retired forester Dan Bobbe (right) visit the Laona School Forest Timber Harvest.



DNR NR Region Team Supervisor Craig Williams and Laona students observe equipment used to harvest timber at their school forest.

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 subject areas, and
- healthy communities are dependent upon informed and engaged citizens.

Outcomes

Outcomes are the long-term impacts we want to have on LEAF’s audiences. We believe 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 and issues
- Encourage individual and community action in sustaining forests

2013 School Forest Awards

Congratulations to the 2013 School Forest Award winners for their contributions to their local school forest programs throughout Wisconsin. The current strength of the Wisconsin School Forest Program would not be possible without the dedication of these exceptional people.

Awards were presented at the Celebration of Environmental Education Awards Banquet. The Shumaker family, pictured left, was awarded for their work as community members in the Tigerton School Forest. Teachers Stephen Hadfield and Mary Wagner, pictured on page 9, were awarded for their work in their districts’ school forests.



The Shumaker Family: Sara, Gage, Kelsi, Dan and Nicke with Gretchen Marshall



Wisconsin Green Schools Network Field Biologist Adam Brandt teaches High Marq Charter School students to use clinometers at the Montello School Forest.

Forestry Education

LEAF’s Integrated Approach to Forestry Education

LEAF works to fully integrate 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 Wisconsin Department of Natural Resources 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.

In fiscal year 2014 LEAF began administering Wisconsin Project Learning Tree (PLT), one of the premier environmental education programs in the world. Through hands-on interdisciplinary activities, PLT helps young people learn about complex environmental issues. Project Learning Tree is a program of the American Forest Foundation.



LEAF staff member Sarah Gilbert leads a group of teachers in a tree identification lesson at the Baldwin-Woodville School Forest.

Goals, Programmatic Areas, Strategic Priorities, 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



Teachers learn how to use tree measurement equipment at the Baldwin-Woodville School Forest.

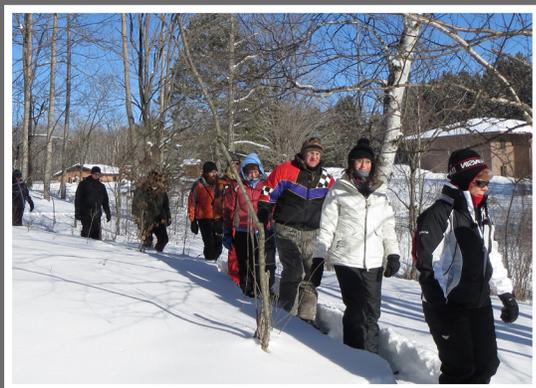
Teacher Professional Development

Strategic Priorities

- Diversify and provide courses, workshops and in-services to holistically address professional development goals and focuses, and program outcomes
- Provide professional development for 600 educators focused on Wisconsin forests
- Partner with the Green Schools Network
- Prepare for the second offering of Wisconsin Forests For Every Classroom
- Offer 12 LEAF courses that may include the following: 740, 741, 742, 743 and 744
- Engage all LEAF staff and ad hoc instructors in collaborative course development
- Provide teachers with outdoor experiences
- Integrate outdoor learning into LEAF professional development and networking offering
- Coordinate Wisconsin Project Learning Tree (PLT)

Achievements

- LEAF provided 40 professional development experiences for 640 educators in 2013-2014. Professional development includes in-services, statewide workshops, school forest workshops and conference presentations. Since 2003 more than 6,000 educators have participated in LEAF professional development.
- Thirty PLT workshops were held reaching 569 people.
- School Grounds workshops were conducted in Lake Mills, Milwaukee and Wisconsin Rapids.
- Ten LEAF courses were taken by 98 participants. These courses included a new Winter Ecology and Tree ID course, School Forest Programs and Administration, Enhancing School Forest Education, Greening Your Math, Human Influence on Wisconsin’s Forests (online), and the standard LEAF course, now offered as a hybrid.
- Discussions were initiated for additional course development by LEAF staff and ad hoc instructors.
- A new course called Winter Ecology and Tree ID was developed, offered and attended by 18 people.



Winter Ecology Tree ID Course participants hit the snowy trail.

LEAF offers winter tree identification course

Eighteen educators, LEAF staffers Nicole Filizetti and Sarah Gilbert and Treehaven’s forest ecologist Kevin Burns, got out on snowshoes to learn at the Treehaven Field Station located near Tomahawk, Wis. This was the first run of the LEAF Winter Ecology and Tree Identification Course. While it can be difficult to find reasons to get outside with students in the cold winter months, winter tree identification offers a perfect reason to visit an outdoor classroom.



Identifying wildflowers in the Boscobel School Forest.

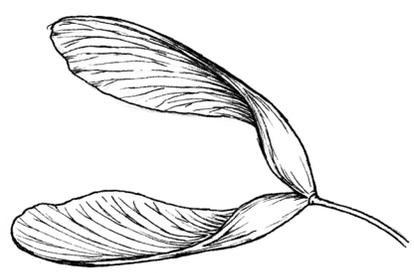
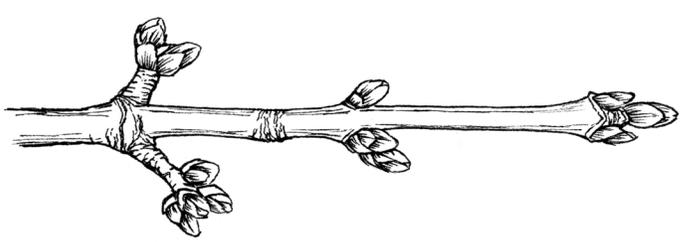
Curriculum Resources

Strategic Priorities

- Compile audience specific curriculum packages (e.g., art) of existing LEAF and other curriculum materials and engage teachers in developing these packages
- Hire a graduate student to help with the development of more curriculum resources directly related to the arts
- Evaluate need for new and additional curriculum materials and develop new materials as deemed necessary
- Maintain coordination of the Forestry Education Kits
- Develop Forest Health Kits in coordination with the DNR
- Correlate LEAF materials to Common Core Standards and the Next Generation Science Standards
- Coordinate the dissemination of PLT materials

Achievements

- All of the LEAF lesson guides and additional materials are available in PDF form; they are available for educators to download and print and have been viewed more than 4,000 times during the previous 12 months.
- LEAF curriculum materials were correlated to Common Core Math and English Language Arts National Standards and the Next Generation Science Standards. An addendum is being created and will be made available online.
- The School Forest Science Curriculum lessons continue to be shared and expanded; the Forestry Education Kits were used by 84 classrooms.
- Forest Health Kits are being developed in partnership with DNR Forest Health Specialist Mike Hillstrom.
- Developed and administrated a Needs Assessment Survey sent to art teachers statewide to inform development of LEAF art curriculum materials.
- A LEAF staff member and the LEAF graduate assistant created an illustrated winter tree identification key to use for educational purposes (examples shown below).
- Began development of nature-based art curriculum supplements to LEAF lesson guides.



Illustrations by LEAF graduate assistant Janet Moore of Silver Maple (*Acer saccharinum*) twig and samara for LEAF Winter Twig Identification Key



Consultation

Strategic Priorities

- Respond to requests from schools in the Wisconsin Green & Healthy Schools Program as it relates to LEAF priorities
- Provide support to Goodman-Armstrong Creek School District
- Search out and explore opportunities to implement integration models
- Participate in the development of the Forest Exploration Center Charter School and site by offering curriculum development assistance and professional development
- Provide support to the Tomorrow River Community Charter School (Amherst)
- Respond to requests for assistance in all of our priority program areas

Achievements

- LEAF staff supported 10 Green & Healthy Schools Workshops reaching 274 educators.
- Staff reviewed the National Green Ribbon Applicants from Green & Healthy Schools Wisconsin.
- LEAF staff served on the Forest Exploration Center Charter School planning and site planning teams.
- LEAF staff provided consulting services to the Tomorrow River Community Charter School (Amherst).
- Support was provided to 14 schools developing outdoor classrooms working with 220 individuals working with their school forests.

Networking

Strategic Priorities

- Develop mentorship opportunities for teachers
- Work with other partners to provide relevant information about forestry education.
- Provide educators and stakeholders with valuable information through LEAF's newsletter, the LEAFlet, and the LEAF website
- Maintain network of Wisconsin PLT facilitators and relations with national PLT

Achievements

- School forest field trips to the Kimberly School Forest and Summit Environmental School Forest were offered as part of the WSST and WAEE conferences.
- A network of 40 active Wisconsin PLT facilitators was maintained and 14 new facilitators were trained.
- Eleven presentations at three Wisconsin institutions reached 187 pre-service students.
- Taught three workshops on nature journaling and art/science integration to more than 90 environmental educators and art teachers at professional conferences, and to more than 250 pre-service teachers at UW-Stevens Point, UW-Milwaukee and Northland College.



Incorporating math at the Lake View Elementary School Forest in Madison.



Montello School Forest

Outdoor Classrooms

Strategic Priorities

- Support school forest development and utilization and explore additional services as needed
- Assist schools with the development of school forest education plans
- Present awards for school forests accomplishments
- Visit school forest sites with school staff
- Conduct school forest course for credit
- Register school and community forests
- Present information about school forests and LEAF to partner organizations and agencies
- Expand the School Grounds program to support schools in the development and utilization of their outdoor classrooms
- Connect local professionals in the natural resources community to K-12 schools

Achievements

- School forest and community forest registration assistance was provided to 26 schools and one municipality. Twelve new school forests and one new community forest were registered.
- Three school forest awards were presented at the Celebration of Environmental Education Awards Banquet. The award winners include: teachers Stephen Hadfield and Mary Wagner (both pictured below), and community members the Shumaker Family (pictured on page 2).
- Assisted BioBlitzes at the following schools: Badger Rock Middle School, Belmont Community Elementary School, Eagleville Elementary Charter School, Fox River Academy (Appleton), Goodman-Armstrong Creek schools, Granton area schools, Highland Community School and High Marq Environmental Charter School.
- Support was provided to 14 schools developing outdoor classrooms in the following school districts: D.C. Everest (Bethlehem Community 4K), Denmark, Fennimore Community Schools, Granton, Highland, Madison Municipal School District (Lake View Elementary and Badger Rock Middle School), Marathon, Manitowoc Public, Menominee Indian, Mosinee, Mukwonago Area (Eagleville Elementary Charter School), Omro (Omro High School), Viroqua Area and Wisconsin Rapids School District.
- There were 18 school forest site visits made throughout the state.
- Two school forest courses were conducted with educators last summer. These courses include NRES 742: School Forest Programs and Administration and NRES 744 Enhancing School Forest Education.



Pittsville teacher Stephen Hadfield accepts his 2013 School Forest Award



Newman Catholic Schools teacher Mary Wagner accepts her 2013 School Forest Award.



Observing champion trees in the Waupun School Forest.

Student Activities

Strategic Priorities

- Maintain the annual FFA Career Development Event (CDE) in partnership with agriculture educators
- Support the Wisconsin Science Olympiad Forestry Event in partnership with the Wisconsin Society of American Foresters

Achievements

- LEAF supported the Wisconsin Science Olympiad Forestry Event in partnership with Wisconsin Society of American Foresters in 2013. The topic of forestry was discontinued in 2014.
- One hundred-twenty students representing 30 teams from around Wisconsin took part in this year's CDE.
- Model teaching was provided to 59 different classrooms, many multiple times and in different subject areas: D.C. Everest, Omro, Lakeview Elementary, Granton, Eagleville Charter school, Fennimore, Badger Rock, Stoughton, Marathon, Manitowoc, Highland, Viroqua, Keshena, Denmark, Mosinee and Wisconsin Rapids.
- Staff provided assistance judging at the Wisconsin Youth Summit where 110 students attended.
- Staff provided judging and support to the Wisconsin Envirothon serving 130 students.

Evaluation

Strategic Priorities

- Conduct School Forest annual survey, professional development evaluation, post-professional development survey and informal evaluation tools
- Assess program progress toward meeting program outcomes
- Engage outside evaluators where appropriate to evaluate effectiveness of the program and strategies relative to achieving outcomes

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.
- Seventy individual schools or districts provided responses to the *annual school forest survey*; Responses were received from 67 public school districts and two private schools and one higher education institution representing a 32 percent response rate.
- A LEAF post-professional development evaluation was sent to 188 individuals who had a LEAF professional development experience between January and December 2012. A report is available upon request.
- A survey of PLT facilitators was conducted to assist in the transition of PLT's coordination from the DNR to LEAF.

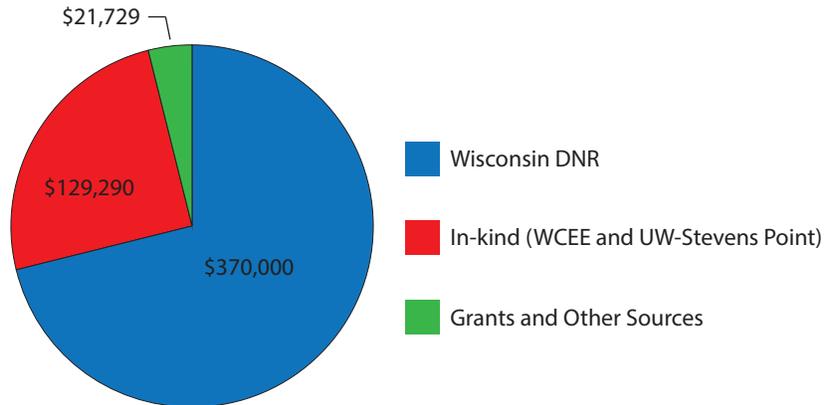


Catching wildlife during a BioBlitz at the Pulaski School Forest.

Budget

The LEAF budget below covers fiscal year 2014 (July 1, 2013 to June 30, 2014). Through the Wisconsin DNR Division of Forestry, \$350,000 is annually provided from the forestry account for the LEAF Program. In July 1, 2014 an additional \$20,000 was added from the Wisconsin DNR Division of Forestry to administer the Wisconsin Project Learning Tree 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 FY 2014
July 1, 2013 - June 30, 2014**



LEAF is a partnership program. We thank all of our partners from the past 12 months.

- American Forest Foundation - Project Learning Tree
- Cofrin Center for Biodiversity at the University of Wisconsin-Green Bay
- Earth Partnership for Schools
- Forest Exploration Center
- Goodman-Armstrong Creek School District
- Great Lakes Timber Producers Association
- Society of American Foresters
- Sustainable Forestry Initiative
- Trees For Tomorrow
- United States Department of Agriculture, U.S. Forest Service
- UW-Stevens Point College of Natural Resources
- UW Extension-Cooperative Extension

- UW-Stevens Point Wisconsin Association for Environmental Education
- Wisconsin Association of Agricultural Educators
- Wisconsin Department of Natural Resources Wisconsin
- Wisconsin Department of Public Instruction
- Wisconsin Environmental Education Board
- Wisconsin Environmental Education Foundation
- Wisconsin FFA
- Wisconsin Green & Healthy Schools Program
- Wisconsin Green Schools Network
- Wisconsin Paper Council
- Wisconsin Society of American Foresters
- Wisconsin Society of Science Teachers

“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



LEAF Staff

Nicole Filizetti • Program Development Specialist
 Sarah Gilbert • Program Coordinator
 Chris Kuntz • Outreach Specialist
 Ann Lindner • Project Learning Tree Co-coordinator
 Gretchen Marshall • Forestry and Outdoor Education Specialist
 Dan Martinson • Communications and Networking Coordinator
 Janet Moore • LEAF Graduate Assistant
 Susan Schuller • WCEE Program Coordinator
 Jeremy Solin • WCEE Interim Director

LEAF Advisory Committee

Laura Anderson-McIntyre	UW-Stevens Point College of Natural Resources, Assistant Professor of Forest Recreation
Miles Benson	The Forest History Association of Wisconsin, Inc.
Scott Bowe	UW-Madison, Department of Forest and Wildlife Ecology
Scott Brown	McFarland School District
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
Bob Govett	UW-Stevens Point College of Natural Resources
Earl Gustafson	Wisconsin Paper Council
Kirsten Held	Wisconsin Department of Natural Resources - Division of Forestry
Jeff Hicken	Wisconsin Dept. of Public Instruction - Agriculture Education
Mike Johnson	La Crosse Area School District
Jeremy Koslowski	Wisconsin County Forest Association
Jan Lehrer	Wisconsin Woodland Owners Association
Kendra Liddicoat	UW-Stevens Point College of Natural Resources, Assistant Professor of Environmental Education
Victoria Rydberg	Wisconsin Dept. of Public Instruction - Environmental Education
Henry Schienbeck	Great Lakes Timber Professionals Association
Dennis Schoeneck	Enterprise Forest Products, Inc.
Barb Thompson	West Salem Elementary School
Cheryl Todea	Trees for Tomorrow
Lisa A. Wachtel	Madison Metropolitan School District
Mary Wendorf	Merrill School Forest
Sherry Wise	Wisconsin Department of Natural Resources - Bureau of Parks and Recreation
Ron Zalesny, Jr.	U.S. Forest Service, Northern Research Station



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