



MAINE PROJECT LEARNING TREE®

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FALL 2016

PLT® Mission: PLT uses the forest as a "window" on the world to increase students' understanding of our environment; stimulate students' critical and creative thinking; develop students' ability to make informed decisions on environmental issues; and instill in students the commitment to take responsible action on behalf of the environment.

1977 to 2017 - MAINE PROJECT LEARNING TREE TURNS 40!

Let's celebrate! In the coming months, we'll begin making plans for a gala event sometime in the fall of 2017 at a location that may bring back some fond memories. Please dig through your old photos, sketch books and PLT guides to help ignite your memories and consider sharing them either on the MEPLT FB page or by sending your recollections and photos to me.

National PLT has been celebrating a 40th Anniversary throughout 2016.



Remembering: Jeannie, Vicki & Mary Ann – PLT Reunion

When asked to reflect on early memories of MEPLT, Dean Bennett and Ken Laustsen sent their musings to share with the network. We'll continue to collect names of people and places recalled and then share them at our fall 2017 **Maine Project Learning Tree Turns 40! Reunion** and annual Maine TREE Foundation event – watch for a final date and our location and be sure to save that date and join us in celebrating our past and imagining our visions for the next 40 years of Maine PLT.

Dean Bennett, one of our earliest PLT champions, recalls "A memory I have from my past work in environmental education and PLT goes back to the 1970s. During those years I met Cheryl Charles who ran a workshop at the Maine Conservation School when I was teaching there in the summers.

She was National Director of Project Learning Tree from 1976 to 1984. Another leader in the field who worked to support PLT was June McSwain, Education Director with the American Forest Institute. I served with her on the board of the Conservation Education Association and met with her in Maine at least once. Both of these women who were leaders in the environmental education movement nationally brought their talents to further PLT in Maine."

Ken Laustsen a long time PLT facilitator and member of the now defunct but not forgotten Penobscot Team sent his recollections from the 1990's:

"While working for Great Northern Paper, Carol Redelsheimer, a professional colleague, suggested that I might enjoy becoming a PLT facilitator. So in 1990, I signed up and attended the joint PLT and Project Wild facilitator training that was held at Nicauous Lodge. The forestry landscape in the 1990s was contentious; the State of Maine had recently passed a Forest Practices Act (FPA) in 1989 that implemented a lot of new regulations on forest management and professional foresters. The public interest in private industrial forest management was increasingly unfavorable and eventually led to several statewide referendum questions (Do I vote for 1, 1A, or 2?). I needed better methods to explain forest management concepts in my public contacts and PLT

Continued on page 2



"Bed of Nails", harvest demo for proposed 1990s referendum language by Ken Laustsen

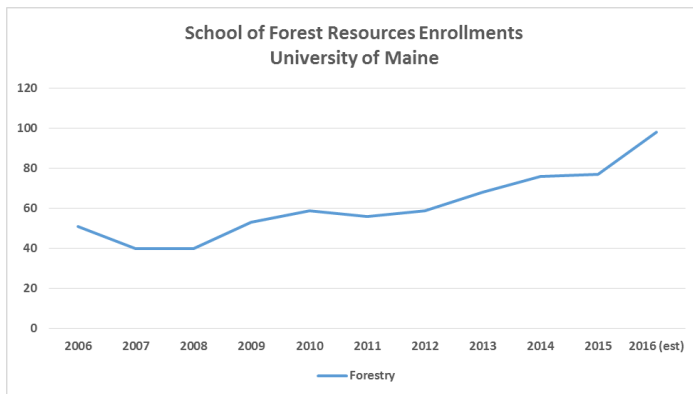
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provided the skills and the chance to practice. The “Triad” approach, having an educator, a natural resource professional (forester, wildlife biologist), and a community person presents a workshop which allows lots of good discussions. Ken remembers meeting Donna Peare at the 1990 training. Donna was the communications contact for Boise Cascade in the 1980s and early 1990s and also served a regional function for PLT in the 1990’s.”

Enjoy your own reflections, the Newsletter photos and do get in touch. We can’t celebrate without you!

University of Maine School of Forest Resources on the Upswing

By Dr. William H. Livingston, Associate Director of Undergraduate Programs School of Forest Resources



Since 2008, enrollments in the University of Maine Forestry program have more than doubled to nearly 100 in the fall of 2016. The incoming forestry class has 31 students, 26 (84%) come from out of state, primarily New England. Students have been attracted to UMaine because of competitive tuition, a scholarship program which awards \$300,000 annually, and the best location in the northeastern US for studying forestry. Students also have plenty of summer internship opportunities to stay in Maine and work with the state’s foresters. The University’s commitment to supporting the Forestry program has clearly been rewarded as the enrollments continue to grow.

New Outdoor Resources Course at Waterville Junior High Focuses on Forest Management

By Jason Cyr, Grade 7 Biology/Outdoor Resources Teacher

With the help of the Maine Forest Service District Forester, Morton Moesswilde, students at WJHS laid the ground work last spring for a new STEM course offered this fall with a focus on forestry. Students have roughly 25 acres of

forest on campus where they will establish Forest Inventory Growth (mainefig.org) plots to add to the state’s data collection effort. The PLT *Focus on Forests* Activity 1 provides further data analysis for understanding forest health.

Beyond establishing FIG plots, the long-term goal for the course will find students drafting forest management plans, revitalizing a grown-over community trail system, and constructing an outdoor classroom. Eventually the plan will include a demonstration forest. In the meantime, students will learn tree identification and become familiar with the tools and methods of data collection in the field.



Mort Moesswilde leads a forestry lesson

Included within the forestry unit students are learning to use topographic maps, compasses and GPS plus wilderness survival and first aid skills. Guest speakers from IF&W, the Maine Forest Service and Registered Maine Guides will educate students about careers in forestry, wildlife management, recreation, and law enforcement.

2016 MAINE PROJECT LEARNING TREE STEERING COMMITTEE

- Anita Smith, Chair**, Maine Master Naturalist
- Sherry Huber, Treasurer**, Maine TREE Foundation
- Barry Burgason**, Huber Resources
- Stephen Gettle**, Woodland Investment Services
- Betty MacWilliams**, Tree Farmer and Former Science Teacher
- Timothy Surette**, University of Maine, Augusta
- Shari Templeton**, Maine Department of Education
- Bernie Welch**, Sebasticook Valley Middle School
- Warren Whitney**, Maine Coast Heritage Trust
- Linda Woodard**, Maine Audubon
- Pat Maloney**, Maine PLT Coordinator



Remembering: Paul Memmer's Stump Speech at China Schools Forest

OUR BIANNUAL ROUND OF APPLAUSE TO THE FOLLOWING PLT FACILITATORS & PRESENTERS EXTRAORDINAIRE:

- | | |
|------------------|--------------------|
| Joanne Alex | Susan Linscott |
| Dawna Blackstone | William Livingston |
| Barry Brusila | Oliver Markewicz |
| Barry Burgason | Gordon Moore |
| Terri Coolong | Anita Smith |
| Kevin Doran | Don Sprangers |
| Shane Duigan | Shari Templeton |
| Susan Hillman | Sandra Walczyk |
| Becky Kolak | Jack Witham |
| Ken Laustsen | |

And to our FIG Support Advisory Team:

- Kevin Doran
- Ken Laustsen
- Sarah Morrisseau
- Shari Templeton
- Maine Audubon
- National Project Learning Tree

Sincere & special thanks to:

- Joanne Alex, University of Maine
- Estate of Philip & Mary Chadbourne
- Laurie Haines and Thorncrag Bird Sanctuary/Lewiston HS
- Forest Field Day presenters
- Susan Hillman, University of New England
- Colin Jandreau
- Crystal Priest and Niloofar Yousefi Shivyari
- Janice Rey, St. Joseph's College
- Anna Schwarz, Maine, Society of American Foresters
- Bill Zima, Superintendent, RSU 2
- Maine Huts & Trails
- National Project Learning Tree staff

Forest Vocation Pathways

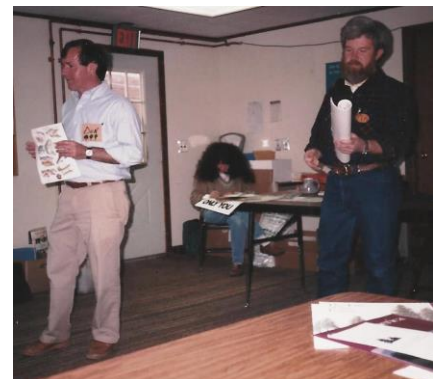
By Denise Plante, Principal/Superintendent

Forest Hills High School is continuing to study and build a program for students that will prepare them for a career in the woods. This work began in the summer of 2014 when the school administration met with Dr. Patrick O'Neill, Director of the Tri-County Technical Center in Dexter. He had been working on a Wilderness Program and offered the school advice for building a career/technical program. This partnership grew and the district remains vigilant in seeking funds from various sources.

Community input is important and several surveys have been conducted with a focus on workforce need and student interest. Advisory board members and partnership development is crucial to build a quality program. The University of Maine, Orono, School of Forest Resources, with funding from the Appalachian Mountain Club, conducted a survey with middle and high school students to determine their interests and aspirations. Results from the survey demonstrate strong student interests in living and working in the forest-dominated region of Jackman. UMO has also expressed interest in articulating programs such that students completing the pathway at Forest Hills could have entry-level classes waived in their forest majors.

Students in the pathway will become proficient in many "soft skills" of the work force such as working as a team and punctuality, as well as behaviors that represent a responsible and involved citizen. Skills needed to be successful in a career in forestry such as tree identification, woodlot management, safety and entrepreneurial skills will be developed. Key to the program is on-the-job training and apprenticeships in addition to student-designed projects. Project Learning Tree curriculum and activities will provide a valuable resource for staff and students.

Funding is a challenge due to the district's continuing reduction of state funding—over a half million dollars in the past six years with a total budget of a little over two million.



Remembering: Don Ouellette and Tim Scott

SAD 75 Team – Connecting Forestry from Grades 3 through 7

Editor Karen Mayo, Bowdoin Central School & Mollie Vandenberg, Mt. Ararat Middle School



New & old SAD 75 team. Mollie is the photographer!

As teachers we know how times have changed for many educators who often find themselves teaching a pre-determined curriculum while leaving little time for the extras. As Maine residents we understand the importance of our forest resource and want students to be aware of this tremendous resource. But what can we do as educators to bring this awareness to our young people?

A Bowdoin Central School (BCS) team found the summer Maine TREE Foundation /PLT teachers' tour (TT) to be an amazing resource for helping us use "extra" time to bring awareness of the forests to our students while exciting them about the wonders it holds. For us the TT benefits were two-fold. In addition to receiving ready-to-use classroom guides, we experienced first-hand the workings of Maine's forest industry.

The K-8 PLT Environmental Education Activity Guide and the Secondary *Focus on Forests* Module that all participants received provides detailed ready-to-use lessons on a wide range of forestry topics. The informational indices and appendices make it easy to find cross curricular lessons for your grade level, area of interest, or for differentiated instructional practices. Teachers welcomed the planning resource while recognizing the challenge for getting students excited.

The real world part of the tour opened our eyes to the forest industry from harvest sites to wood manufacturing businesses. We learned of the struggles facing many of these businesses as the market for wood products rises and falls. As educators we recognized our role in bringing forestry awareness to our students while emphasizing the importance of Maine's forests and embracing the responsibility to do our part to preserve this resource.

At BCS we'll work to introduce the outside world to our students each year on a continuing basis. Here are a few plans that the team came away with this summer TT:

Third grade will use the lessons to enhance their study of classification and diversity while the 4th grade classes at Bowdoin Central School are excited to use PLT lessons during our weekly adventures. In collaboration with our dedicated Library Ed tech, students will adopt a tree and study their one tree during the year while learning to identify all the trees on our school grounds.

Each year fifth graders participate in an "Aspirations" project where they are required to spend a minimum of 10 hours researching and creating a presentation about a career they hope to pursue. The summer tour opened our eyes to so many available career opportunities and how these jobs have changed over the years regarding the use of technology. When you speak of the Maine woods, students immediately think of Game Warden or Forest Ranger, however following the tour BCS teachers can now provide leads to a much wider array of occupations. Some examples include: loggers, machinists, forest pathologists/entomologists, forest economists, road superintendents/forest engineers, wood scientists/wood composites specialists, or arborists.



Gayle Toolin and Steve Crowe prepare an Invasive Species lesson

Mollie Vandenberg, Mt. Ararat Middle School teacher, joined the BCS team and shared the following thoughts about the impact of the TT on her classroom practice:

This experience inspired me to reflect on the units I teach and to consider ways to make learning more meaningful for my students. I'm more aware of how to connect my students to the environment around us because of lessons that TT participants shared and considered using this fall. These days so many students are disconnected from nature and the world outside their front doors. Kids aren't experiencing the outdoors as we once did so what is our role as educators to bring students to the natural world?

I want children to know the trees around them, to see the importance of the forests to wildlife, to Maine and to the world and to eventually make educated decisions for keeping our state healthy while growing our economy. I want students to understand how we are all connected and that our actions can impact the world either negatively or positively.

Lessons from a Tree Wall

Bev Foss, Grade 1 Teacher at Athens Community School

I have been on the Maine TREE Foundation/PLT Teachers' Tours a couple of times and would like to share some of my many discoveries. First, the best way to encourage a co-worker to attend a tour is to offer to go with them. I'm slowly getting our whole staff there.

The tours offer a submersion into the biodiversity of the forests, to the people who work in the woods and to the resulting forest products. Speaking of trees - after attending the 2015 session I painted trees on my classroom wall with help from my grandson. Why trees you may ask? Because you can teach a mass of lessons using trees. Some of the PLT lessons I use include *Signs of Fall* for the season and gradually we change the leaves to the different colors. Students learn about chlorophyll when we conduct the experiment found within the activity.



Bev's Tree Wall

In Activity 76, *Tree Cookies*, we count rings of life using tree cookies that I have in class and then we estimate the age of our wall trees. Activity 79, *Tree Life Cycle*, enriches our unit of study.

An excellent lesson from the tree wall helped me to notice that as we, as teachers, learn over time so do our children. Since our wall is with us all year I constantly witness my students coming in with a leaf to see if it matches our wall leaves. When it doesn't, they go right to the *Trees of Maine* book. Learning abounds with comparisons and classroom discussions about leaf shapes, sizes and identification.

After returning home this year I took my science book *Bring Science Alive! Exploring Science Practices* and matched as many PLT lessons as possible to it. Today I'm using my science book for nonfiction reading and PLT as hands-on "doing" science. Another lesson learned - there's nothing as good as your Project Learning Tree Book.

Spruce Budworm Lessons for Teachers:

Maine's spruce/fir forest is poised for the next cycle of a Spruce Budworm (SBW) epidemic! This native species, with a 30 to 40 year cycle, has begun defoliating the Canadian forests. Two Maine teachers prepared grades 8 -12 lessons that address SBW concerns to our forest system, to the economy and to biodiversity. Don Sprangers, Washington Academy Science teacher, developed lessons where students explore articles and stories from the last SBW infestation and ask questions about possible differences between the outbreak then and today.

Susan Linscott, Lee Academy Science teacher, posed an essential question: "How does the forest ecosystem respond to stress?" Susan's students also planned and led a community forum about the SBW. For further details of this lesson, *Spruce Budworm Community Outreach Program* as well as for Don's, *Preparing for the next Spruce Budworm Outbreak*, check out:

www.mainetreefoundation.org/program

Visit <http://www.sprucebudwormmaine.org/> a Maine website developed by the SBW task force which predicts that we'll see outbreak populations of SBW in Maine within the next 3 years.

FIG Blasts Off

Maine PLT, Maine TREE Foundation and Maine Audubon announced the launching of a revitalized Forest Inventory Growth (FIG) website – mainefig.org. Our programs encourage teachers and students to use citizen science to contribute to field research, study the environment, and experience benefits of Maine's forests to both people and wildlife.

This exploratory project connects students to Maine forests which span nearly 90% of our state. FIG combines the best of PLT's curriculum with the US Forest Service's forest analysis program to provide our students with opportunities to explore and study the forest. Mel Christensen, high school science teacher, loves the connections to outdoor learning, data collection and connecting kids with forests.

FIG teams schools with professional foresters for in-class learning and field based investigations. PLT trainings are always face to face with personalized follow-up. Our new FIG website connects students with technology for sharing data across a network of the best educators, students, and natural resource professionals in the state.

Sign up for our FIG workshops on October 12 at Maine Audubon's Gilsland Farm or at Fields Pond on October 15.

Maine TREE Foundation
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Calendar of Events

Watch www.mainetreefoundation.org for 2016/17 workshop updates.

If you are interested in hosting a PLT workshop in your school or community,
please call Pat Maloney at 626-7990 or email meprojectlearningtree@gmail.com to make plans! Visit us on Face

Book: <https://www.facebook.com/MainePLT>

October 12, 2016

PLT *Focus on Forests* with FIG
Maine Audubon, Gilsland Farm
Falmouth, Maine

October 13, 2016

Forest Field Day
Pownal Elementary School
Pownal, Maine

October 15, 2016

PLT *Focus on Forests* with FIG
Maine Audubon, Fields Pond
Holden, Maine

October 18, 2016

K-8 PLT Workshop
St. Joseph's College
Standish, Maine

October 19, 2016

Sid Emery Demonstration Forest
Forest Field Day
Lyman, Maine

October 26, 2016

MTF to honor Maine Tree Farm Committee
Special Recognition to Pine Tree Camp
Augusta Country Club
Manchester, Maine

November 9, 2016

MEPLT Steering Committee
Viles Arboretum
Augusta, Maine

February 8, 2017

MEPLT Steering Committee
Viles Arboretum
Augusta, Maine

March 24, 2017

MEEA Annual Conference
Colby College
Waterville, Maine

April 24, 2017

National PLT Coordinator's Conference
Louisville, Kentucky