

**MAINE PLT**  
**STATE PROGRAM EVALUATION**  
**Spring 2002**

**BACKGROUND INFORMATION**

Project Learning Tree is an interdisciplinary environmental education program for teachers working in grades PreK through grade 12.

**PLT MISSION AND GOALS:**

PLT's **mission** is to:

- increase student 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.

PLT's **goals** are to:

- provide students with the awareness, appreciation, understanding, skills and commitment to address environmental issues,
- enable students to apply scientific processes and higher order thinking skills to resolve environmental problems,
- help students acquire an appreciation and tolerance of diverse viewpoints on environmental issues and develop attitudes and actions based on analysis and evaluation of the available information,
- encourage creativity, originality, and flexibility to resolve environmental problems and issues, and
- inspire and empower students to become responsible, productive, and participatory members of society.

The Maine Forest Service of the Maine Department of Conservation and The Maine Tree Foundation are the primary sponsors of Maine PLT, an initiative that has been active in the state for many years. Over that time, Maine PLT has become increasingly organized and systematic in its approach to service delivery. An Executive Committee and a State Coordinator now oversee program activities and have developed the following mission and goals.

## **MAINE PLT MISSION AND GOALS:**

The Maine PLT **mission** is to use the forest as a “window on the natural world.” More specifically:

- to increase the educators’ knowledge skills and concepts of Maine’s diverse forest ecosystems,
- to expand educators’ ability to stimulate critical and creative thinking with Maine’s children and adults, and
- through interdisciplinary and complementary curricula, assist educators in providing the connections between Maine’s natural resources and people.

Maine’s **goals** are:

- to promote the PLT mission and philosophy of “how to think, not what to think to statewide audiences and to be recognized as a comprehensive forest education program aligned with Maine State Learning Results,
- to provide trained regional teams to lead and promote workshops throughout the state,
- to effectively evaluate and assess Maine PLT, and
- to continue to evaluate the funding mechanisms for PLT and to broaden financial support for the program.

## **EVALUATION PURPOSE AND AUDIENCE:**

Maine PLT’s Executive Committee and State Coordinator interest in conducting an evaluation focuses on serving 3 purposes:

1. to establish baseline data that will inform a more effective and responsive long-term effort.
2. to obtain information about the extent to which and in what ways teachers are using PLT materials and activities with students and otherwise benefit their PLT experiences, and
3. to obtain information that will contribute to program improvement.

The primary audiences for this evaluation are:

- Maine PLT State Coordinator
- Maine PLT Executive Committee
- Maine Forest Service
- Maine TREE Foundation
- Project Learning Tree, National Office

## MAJOR EVALUATION QUESTIONS:

This evaluation focused on answering the following questions:

1. In what ways and to what extent is Maine PLT making progress toward the national and state goals for students and teachers? More specifically, this evaluation attempted to address the following questions:
  - a. to what extent and in what ways do teachers use the PLT materials and activities with students?
  - b. what are the benefits for students relative to the Maine Learning Results and other outcomes?
2. What are PLT users' (teachers and natural resource specialists) perceptions of the program?
  - a. What do the users value about the PLT experience, resources, and approach?

## THE DATA

### DESCRIPTION OF PARTICIPANTS:

(N= Number of respondents)

Teacher	N=111
Natural Resource Specialist	N=50
Facilitator	N=29
<b>TOTAL</b>	<b>N=159 *</b>

**\*Indicates less than the total of the above figures because some respondents served in 2 or more roles (e.g., teacher and facilitator, or natural resource specialist and facilitator, etc.).**

### FOR TEACHERS:

(N=Number of respondents)

#### Grade level Teaching Assignment:

<u>Grade</u>	<u>N</u>	<u>Grade</u>	<u>N</u>
PreK	11	Grade 8	16
Grade 1	9	Grade 9	10
Grade 2	10	Grade 10	10
Grade 3	13	Grade 11	8
Grade 4	13	Grade 12	10
Grade 5	15	Adult	2
Grade 6	19	Substitute	2
Grade 7	17	Student Teacher	2
		Special Ed	1
		Professor	1

**Note: Total will result in larger number than the total number of teacher respondents because some teachers teach more than 1 grade level.**

**Subjects Taught:**

(N=Number of respondents)

<u>Subject</u>	<u>N</u>	<u>Subject</u>	<u>N</u>
All Subjects (Gen. Elementary)	30	Geography	1
Science	24	English	4
Environmental Education	4	Marine Science	1
Special Education	3	Art	1
Earth Science	3	American Gov.	1
Math	7	Oceanography	1
History	3	Natural Resources	1
Computers	2	Biology	2
Life Skills	3	Reading	6
Language Arts	3	Literacy	1
Business	1	Social Studies	2
		Health	2

**NATURAL RESOURCE SPECIALISTS**

(N=Number of respondents)

<u>Agency/Business</u>	<u>N</u>
Maine Dept of Conservation (Forestry)	9
Maine Dept of Conservation (Parks & Lands)	2
Pine Tree State Arboretum	2
Mead Westvaco	1
Maine DEP – Amercorp	4
Knox-Lincoln Soil & Water Cons. District	1
SWOAM	1
Seven Islands Land Co	1
Private Consultant	3
HC Soil & Water Cons. District	1
Dept. of Inland Fisheries & Wildlife	1
Machias & E. Machias Watershed Council	1
Georgia Pacific Corp	1
Septire Paper Co.	1
University of Southern Maine	1
DIRIGO Inst. For Natural Living	1
PPRC	1
Wells NERR/MCC Env. Ed.	1
Kennebec SWCD	1
Hancock Lumber	1
Forest Industry	1
Maine Stewardship Alliance	1
Huber Resources	1
International Paper	1

Damarescotta Lake Watershed	1
Downeast Sabm Federation	1
Maine Ag in the Classroom	1

**RESPONSES TO THE QUESTIONS:**

**PART A. All Respondents.**

**Note:** Figures in **boldface** type indicate **percentage** of total number of respondents  
Selecting each choice option (a,b,c,d, or e).

1. How many years have you been using Project Learning in your teaching?  
a. less than 1 .                      b. 1-2                      c. 3-5                      d. 6-10                      e. more than 10  
**27.2**                                      **20.3**                                      **25.9**                                      **11.4**                                      **15.2**

2. Have you participated in a Project Learning Tree Teacher Workshop?  
a. Yes                      b. No  
**89.3**                      **10.7**

3. **If** you responded “yes” to question 2, in what year did you participate in the PLT workshop for teachers? (N= Number of respondents)

<u>Year</u>	<u>N</u>	<u>Year</u>	<u>N</u>	<u>Year</u>	<u>N</u>	<u>Year</u>	<u>N</u>
<b>2002</b>	<b>– 31</b>	<b>1997</b>	<b>– 4</b>	<b>1990</b>	<b>– 1</b>	<b>1983</b>	<b>– 1</b>
<b>2001</b>	<b>– 39</b>	<b>1996</b>	<b>– 3</b>	<b>1987</b>	<b>– 2</b>	<b>Can’t Remember – 16</b>	
<b>2000</b>	<b>– 25</b>	<b>1995</b>	<b>– 4</b>	<b>1986</b>	<b>– 4</b>		
<b>1999</b>	<b>– 14</b>	<b>1992</b>	<b>– 3</b>	<b>1985</b>	<b>– 2</b>		
<b>1998</b>	<b>– 10</b>	<b>1991</b>	<b>– 2</b>	<b>1984</b>	<b>– 2</b>		

4. Would you be interested in participating in a “refresher” workshop if one was offered?  
a. Yes                      b. No  
**55.2**                      **35.7**                      **Maybe: 3.2**                      **No Response: 5.8**

**To what extent do . . .**

5. you feel that PLT is a **relevant** environmental education program for use with your students?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>0.6</b>	<b>7.2</b>	<b>15.8</b>	<b>43.4</b>	<b>32.9</b>

6. you feel that PLT is an **effective** environmental education program for your students (e.g., effectively contributes towards meeting your environmental education objectives)?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>0.6</b>	<b>8.1</b>	<b>13.4</b>	<b>49.7</b>	<b>28.2</b>

7. you feel that PLT activities are easy for you to use with your students?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
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	<b>1.4</b>	<b>6.8</b>	<b>17.4</b>	<b>55.5</b>	<b>28.8</b>
8. you feel that PLT activities stimulate your students' interests in environmental issues?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>0.0</b>	<b>6.8</b>	<b>17.6</b>	<b>50.3</b>	<b>25.7</b>	
9. you feel that PLT activities provide meaningful and effective learning experiences or children?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>0.0</b>	<b>3.3</b>	<b>6.6</b>	<b>57.6</b>	<b>32.5</b>	
10. you feel that PLT activities are effective in helping you to achieve your overall education objectives?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>1.4</b>	<b>12.2</b>	<b>21.8</b>	<b>44.9</b>	<b>19.7</b>	
11. you feel that PLT has had an impact on fostering more positive attitudes and/or responsible environmental behavior on the part of your students?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>2.7</b>	<b>6.8</b>	<b>21.2</b>	<b>44.5</b>	<b>24.7</b>	
12. you feel that you have derived professional benefits from your association with Maine PLT?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>4.1</b>	<b>6.2</b>	<b>23.4</b>	<b>42.8</b>	<b>23.4</b>	

Please explain:

**Representative Responses:**

- Helped to lead workshops, lead teams, workshop opportunities.
- Networking with teachers and specialists.
- Helped to improve my public speaking.
- Opportunities to present workshops at other schools.
- Exposure to some wonderful teachers.
- Looks good on resume.
- PLT is the standard of excellence in EE across the world.
- Gained much learning.
- I was disappointed that there were so few art activities.
- I am new in my position and didn't have much time for PLT.
- I would like to become more involved.
- Good industry information
- Credits and certification

13. you read the Maine PLT Newsletter?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>11.6</b>	<b>16.8</b>	<b>38.1</b>	<b>22.5</b>	<b>11.0</b>	

Please explain: **Note: 5.5 % did not received the newsletter.**

**Representative Responses:**

Always read it from cover to cover.  
 A great read.  
 I always look through it.  
 Didn't get it for a long time.  
 When I get it, I read it  
 A good source of local PLT info.  
 Time constraints and I already know what's in it.  
 Wonderful updates.  
 I don't get it.  
 I read it when I have time.  
 I glance through it.

14. you visit the national PLT website?  
 1. to no extent    2. some extent    3. moderate extent    4. considerable extent    5. great extent  
**68.4      21.7      6.5      3.3      0.0**

Please explain:

**Representative Responses:**

I just don't spend much time with the computer.  
 It needs to be updated more frequently.  
 I don't use the internet at this time.  
 I don't use it because I don't have the time.  
 I use it to get info for talks and for workshops.  
 No need to use it.  
 I didn't know that it existed.  
 Really haven't felt much of a need to use it.  
 Don't have a computer yet.  
 No Web Service

15. you visit the Maine Tree Foundation website (which include Maine PLT)?  
 1. to no extent    2. some extent    3. moderate extent    4. considerable extent    5. great extent  
**62.5      26.3      9.2      1.3      0.6**

Please explain:

**Representative Responses:**

There will be more time next year with the 7<sup>th</sup> grade laptops.  
 I don't spend much time on computers.  
 I don't use the internet often.  
 I was unaware that there was one.  
 Lack of time, not lack of interest.  
 I'm not much of a web browser.  
 Great Asset

16. you use PLT in your teaching?  
 1. to no extent    2. some extent    3. moderate extent    4. considerable extent    5. great extent  
**11.0      33.3      33.6      15.2      6.9**

Please explain (e.g., times per week, month, etc.)

**Representative Responses.**

- Usually once a week.
- I use it almost daily in my classes.
- Several times a month.
- I teach mostly adults but I use it often when I work with K-8.
- Sporadically, but about once a month.
- I don't teach.
- About once a week during the program season.
- A few times a year.
- 6-8 times a month. Sometimes more.
- I'm not a teacher but I use it when I work with teachers.
- I use it as a resource.
- Once or twice a month.
- Frequently when I teach ecology.
- As part of science class.
- 4-5 times a month.
- 2-3 times a year. It has also been incorporated into the 10<sup>th</sup> grade bio program.
- As Needed.

17. you feel you have derived professional benefits from participating in PLT workshops ?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>5.7</b>	<b>10.0</b>	<b>27.1</b>	<b>36.4</b>	<b>20.7</b>

Please Explain:

**Representative Responses:**

- Excellent networking and idea sharing.
- Great facilitation modeling.
- Lot's of great info.
- Networking, materials, resources.
- I have met teachers in the area with an interest in environment & children.
- Annual facilitators' conference an excellent experience.
- Have not attended any workshops.
- Being able to adapt any lesson to any students needs is always a plus.
- Never went to a workshop, but I have and use all the books.
- "The book."
- I got a lot of information on our local town forest.
- The summer tours are fabulous. I always come back with great ideas.

18. you feel you have derived professional benefits from participating in PLT conferences?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>41.8</b>	<b>3.6</b>	<b>14.5</b>	<b>23.6</b>	<b>16.5</b>

Please Explain: **Less than half of the respondents ever attended a PLT conference.**

**Representative Responses:**

I have never attended a conference.  
Increase my knowledge and skills.  
Excellent networking opportunities.  
Very stimulating, great folks, and well organized.  
Improved my presentation skills and allowed me to work with forestry professionals.  
I know little about educational systems. The conferences helped me a lot.

19A. you have a copy of the CD ROM, Maine Forests Forever?

1. Yes                      2. No  
**66.2**                      **33.8**

19. B. you use the CDROM Maine Forests?

1. to no    2. some                      3. moderate    4. considerable    5. great  
  extent    extent                      extent            extent            extent  
**56.1**    **26.5**                      **13.3**            **4.1**                      **0.0**

Please explain:

**Percentages shown based only on number of respondents that indicated that they had a copy of the CD ROM.**

**Representative responses:**

Too advanced for my students.  
Difficult to use with only a few copies for an entire class.  
Not yet.  
I've tried it once. Very good.  
I plan to use it in the future.  
A good basic intro to the program.  
Put forth a major effort to distribute it to all area schools.  
I would like to get a copy. (many responses).  
Not enough time.  
It won't work on my school computer.  
I share it with the science teacher.  
I can't seem to get past the initial couple of screens.

20. To what extent do you feel that the PLT workshop activities were relevant?

1. to no    2. some                      3. moderate    4. considerable    5. great  
  extent    extent                      extent            extent            extent  
**0.0**            **6.3**                      **17.3**            **51.2**                      **25.2**

Please explain:

**Several respondents indicated that it was difficult to use PLT in the subject they taught (e.g., reading, basic skills, etc.)**

**Representative Responses:**

Made me really understand what renewable & non-renewable resources meant.  
Great activities.  
Helped me in preparing curriculum.  
Hard to get activities into 9<sup>th</sup> grade program due to MLK requirements.  
I don't use it so much because I teach rudiments of math and reading  
Even though they are tied to learning results, I still don't have enough time.

Too advance to use with my students.  
 Facilitators tailored the workshop to our specific needs.  
 The activities covered the heart of the program.  
 The methods are useful in settings beyond PLT.  
 If the activities focus on water quality, they are relevant to my curriculum.  
 Workshops are well taught by experienced and confident leaders.  
 Activities cover the major events of our times.  
 Depends on the program and the institution.  
 Great Resource.

21. To what extent were the strategies and instructional methods shared during the PLT workshops helpful to you?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>1.8</b>	<b>10.1</b>	<b>22.0</b>	<b>47.7</b>	<b>18.4</b>

Please explain:

**Representative Responses:**

I'd like to see students encouraged towards inquiry based learning.  
 I enjoy learning new teaching strategies.  
 Have helped me to teach a multitude of teaching styles.  
 I think that just have lots of mini lessons is very helpful.  
 I gathered useful info an "tricks" and methods.  
 Great experiential leaning.  
 As a resource person with no formal training in teaching, it's very helpful.  
 The methods are useful in many setting, not just PLT.  
 I would have liked to have had more examples shown.  
 Learn, teach, feedback, "the book."

22. How often do you use PLT activities in your teaching?

1. Weekly	2. monthly	3. several times/year	4. never
<b>10.3</b>	<b>18.7</b>	<b>65.4</b>	<b>4.6</b>

**PART B. TEACHERS ONLY.**

**To what extent do . . .**

1. you feel that PLT is an **appropriate** environmental education program for use in your ?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. Great extent
<b>1.9</b>	<b>10.7</b>	<b>15.5</b>	<b>47.6</b>	<b>24.3</b>

2. PLT program has been used within your school's science curriculum?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>10.2</b>	<b>34.1</b>	<b>35.2</b>	<b>14.8</b>	<b>5.7</b>

3. you feel that the PLT program is compatible with your school's science program?

1. to no	2. some	3. moderate	4. considerable	5. great
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	extent <b>1.1</b>	extent <b>19.8</b>	extent <b>19.8</b>	extent <b>42.9</b>	extent <b>16.5</b>
4. you feel that the PLT program should be used more extensively in your school's science program?	1. to no extent <b>6.0</b>	2. some extent <b>10.7</b>	3. moderate extent <b>17.9</b>	4. considerable extent <b>51.2</b>	5. great extent <b>14.3</b>
5. has the PLT program been used within your school's social studies curriculum?	1. to no extent <b>54.1</b>	2. some extent <b>29.4</b>	3. moderate extent <b>13.8</b>	4. considerable extent <b>2.4</b>	5. great extent <b>2.4</b>
6. you feel that the PLT program is compatible with your school's social studies program?	1. to no extent <b>11.0</b>	2. some extent <b>45.1</b>	3. moderate extent <b>29.3</b>	4. considerable extent <b>11.0</b>	5. great extent <b>3.7</b>
7. you feel that the PLT program should be used more extensively in your school's social studies program?	1. to no extent <b>10.1</b>	2. some extent <b>32.9</b>	3. moderate extent <b>34.2</b>	4. considerable extent <b>16.5</b>	5. great extent <b>6.3</b>
8. has the PLT program been used within your school's language arts program?	1. to no extent <b>49.4</b>	2. some extent <b>31.3</b>	3. moderate extent <b>14.5</b>	4. considerable extent <b>2.4</b>	5. great extent <b>2.4</b>
9. you feel that the PLT program is compatible with your school's language arts program?	1. to no extent <b>11.3</b>	2. some extent <b>43.8</b>	3. moderate extent <b>24.5</b>	4. considerable extent <b>16.3</b>	5. great extent <b>3.8</b>
10. you feel that the PLT program should be used more extensively in your school's language arts program?	1. to no extent <b>16.2</b>	2. some extent <b>36.5</b>	3. moderate extent <b>25.7</b>	4. considerable extent <b>17.6</b>	5. great extent <b>4.1</b>
11. has the PLT program been used within your school's Math program?	1. to no extent <b>60.5</b>	2. some extent <b>27.2</b>	3. moderate extent <b>9.9</b>	4. considerable extent <b>1.2</b>	5. great extent <b>1.2</b>
12. you feel that the PLT program is compatible with your school's Math program?	1. to no extent <b>17.5</b>	2. some extent <b>51.3</b>	3. moderate extent <b>22.5</b>	4. considerable extent <b>7.5</b>	5. great extent <b>1.3</b>
13. you feel that the PLT program should be used more extensively in your school's Math program?	1. to no	2. some	3. moderate	4. considerable	5. great

	extent	extent	extent	extent	extent
	<b>15.5</b>	<b>43.7</b>	<b>28.3</b>	<b>11.3</b>	<b>1.4</b>
14. feel that the teachers in your school support the use of PLT?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>8.3</b>	<b>46.5</b>	<b>27.7</b>	<b>11.9</b>	<b>2.4</b>	
15. you feel that the school administration supports the use of PLT?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>10.4</b>	<b>44.2</b>	<b>30.0</b>	<b>14.3</b>	<b>5.2</b>	
16. you feel that the parents in your school district support the use of PLT?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>11.3</b>	<b>49.3</b>	<b>23.9</b>	<b>14.1</b>	<b>2.8</b>	
17. you use PLT activities when preparing lessons in various subject areas?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>5.4</b>	<b>48.6</b>	<b>32.4</b>	<b>12.2</b>	<b>1.4</b>	
18. you feel that PLT has enhanced your overall curricula needs?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>8.3</b>	<b>29.8</b>	<b>33.3</b>	<b>21.4</b>	<b>7.1</b>	
19 A. you feel that Tree Links to the Maine State Learning Results are thoroughly aligned?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>8.2</b>	<b>8.2</b>	<b>27.4</b>	<b>38.4</b>	<b>17.8</b>	
19 B. you use the Tree Links alignment?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>27.0</b>	<b>21.4</b>	<b>24.3</b>	<b>17.6</b>	<b>9.7</b>	
20. you feel that PLT can better address your classroom needs?					
1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent	
<b>26.0</b>	<b>17.8</b>	<b>34.2</b>	<b>17.8</b>	<b>4.1</b>	

Please explain:

**Representative Responses:**

Offer models that build on an interdisciplinary approach.

Already well addressed.

I am straining now to cover all the different facets of study.

I just need to use it more.

Can you provide more actual time for teaching this?

It's a very good curriculum.

Link activities to technology resources.

21. you use other environmental education resources in your teaching?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>7.4</b>	<b>33.3</b>	<b>23.5</b>	<b>19.8</b>	<b>16.0</b>

Please Explain:

**Representative Responses:**

Project WET, Project Wild, WOW on Wetlands.  
Food, Land & People.  
Natural Resources Council.  
The “great outdoors.”  
Northern Wetlands Magazine  
Internet Resources.

22. you used Tree Links when planning or developing units of study?

1. to no extent	2. some extent	3. moderate extent	4. considerable extent	5. great extent
<b>29.8</b>	<b>38.1</b>	<b>21.4</b>	<b>8.3</b>	<b>2.4</b>

Please explain:

**Representative Responses:**

I use it to reinforce curriculum standards.  
We used it to develop units for four teachers to use next year.  
In industry and environment.  
Time, time, time. We are under too many directives from the state and local Districts to teach too many things. Not enough hours in the day!  
I am using PLT to help build a curriculum for middle school.

**PART C. FOR NATURAL RESOURCE SPECIALISTS:**

Please describe how you use PLT in your work.

**Representative Responses:**

- \* EE is very important to me and PLT is a great curriculum.
- \* I incorporate it into my graduate Environmental Education course.
- \* I use it in my Science and Math program with the AIMS program.
- \* When working with K-8 students. I typically use the PLT activities related to forestry.
- \* I talk about it with teachers in school, pass it along .
- \* I focus on watershed issues and make the connection between land use and water quality.
- \* I use the activities during River Days in conjunction with Craig Brook Hatchery student activities.
- \* I don't use it.
- \* As an entomologist, I've found the activities to be an excellent was of talking about insects.
- \* I use it in conjunction with my outdoor education program at Pine Tree State Arboretum.
- \* I use it with Environthon, Pottles, Outdoor classroom and just forestry education.
- \* I use the Cookies demonstration and Chemical/plastics/cellulose outline.
- \* I don't have the training so I don't use it very much at all.

- \* It's helped me with Environothon, Tree Farm, adult education and others. It has also helped me to understand school systems better.
- \* Every time I'm out with a group of kids and, occasionally, with adults. About 2 times a week.
- \* I use selected activities in my outreach on water quality.
- \* Getting people involved. PLT teaches hands on and give me opportunities to show the natural process in action.
  - Concept development with Forest landowners, reasoning and concept introduction at meeting and focus groups, and teachable moments when working with key people.

**PART D. FOR FACILITATORS:**

How many workshops have you done in the:

<b>Past Year</b>	<b>Past 2 years</b>	<b>Past 3 years</b>
25	40	66

Note: One respondent reported that she presented 48 workshops during the past year as part of a Service Learning program. These 48 workshops are NOT included in the above figures because it is not certain that the workshops presented by this respondent are the “typical” 6 hour standard PLT workshop.

Could you give approximate dates?

Note: Very few respondents provided dates. Most left this question “blank” or noted that they did not remember the dates.

**RESULTS**

NOTE: Since the Maine Project Learning Tree is a voluntary and a supplementary program, this evaluator considered responses indicated “**moderate**” “**considerable**” or “**great**” to be a **positive** response.

**DESCRIPTIVE INFORMATION.**

1. One-quarter of the respondents have been using PLT for less than 1 year, 20% for 1 to 2 years and, one-quarter for 3 to 5 years. More than one-quarter has been using from 6 years to more than 10 years. More important is the fact that more than half of the respondents have been using PLT for more than 3 years. Hence, it appears that PLT is a program that is not only valued by the respondents but also enjoys a considerable degree of longevity. Moreover, PLT has been used for more than 6 years by nearly 30% of the respondents. Few curricula can boast of such resiliency.

2. Nearly all respondents have attended a PLT workshop and the majority of them have participated in a “first” or “refresher” workshop within the past two years.
3. More than half of the respondents indicated an interest in participating in a refresher workshop if one is offered. These respondents should be contacted when the next workshop is scheduled or, perhaps, consideration should be given to scheduling a workshop soon for this group of PLT users. It should also be noted that a significant number of respondents who did not express an interest in attending a refresher workshop had participated in a workshop during the past 2 years.

### **RELEVANCE AND EFFECTIVENESS OF THE MAINE PLT PROGRAM.**

Most of the respondents reported that PLT is a very relevant, effective, easy to use program that stimulates student interest in environmental issues. It accomplishes this by providing meaningful and effective learning experiences for children. Of potentially even greater importance, however, is the fact that nearly 90% of the respondents reported that PLT has had a significant impact on fostering more positive attitudes and/or responsible environmental behaviors on the part of their students – a very difficult to achieve and often elusive goal of environmental education. (Questions, 5,6,7,8,9,10,11) Nearly all of the respondents (86.6%) felt that PLT helped them to achieve their educational objectives to at least a moderate extent; more than 2/3 of this group indicating to a “considerable” or “great” extent.

### **FREQUENCY OF PROGRAM USE.**

Approximately 60% of the respondents indicated that they used PLT in their teaching between a “moderate” and a “great” extent. This is, indeed, a very positive level of response when one considers that PLT is a supplementary program used entirely on a voluntary basis. The range of responses indicated typical usage for as frequently as “daily use” to “several times a month.” Some respondents noted that they use PLT extensively only when they teach certain topics (i.e., ecology, water resources, etc.) [Question 16]. Specific responses were use were: “several times a year” (60%) followed by “monthly” (27.5%) and “weekly” (11.7%) [Question 22].

### **PROFESSIONAL BENEFITS.**

More than 90% of the respondents indicated that they derived positive professional benefits from their **association** with PLT. Most of the “benefits” derived were in the area of networking with other teachers and resource specialists, increased knowledge of subject matter and teaching techniques, and opportunities to conduct workshops (question 12). Respondents also replied positively to deriving benefits from PLT workshops (84%). The benefits included

networking and idea sharing, and “great” information, materials, and resources. Attendance at PLT conferences seemed to be valuable experiences for **those who attended** (question 18). However, less than half of the respondents actually ever attended a conference. Greater efforts need to be expended to make the conference known and available to more users of the program. Of those who attended one or more conferences, the benefits derived seemed to focus on increased knowledge, teaching skills, and networking opportunities.

## **COMMUNICATIONS AND OUTREACH.**

### **Maine PLT Newsletter.**

Approximately 75% of the respondents read the PLT newsletter to **at least** a moderate extent. Of these, about half read it to a “considerable” or to a “great extent”. Some report that they read it from “cover to cover” while others tend only to “look through it.” For those who indicated that they did not read the newsletter, a significant number noted that they did not have the time to read it. Those who did read the newsletter noted that it was a good source of State related PLT information and “wonderful” updates. Some of the respondents (5.5%) reported that they didn’t get the newsletter (question 13).

### **National PLT Website.**

Apparently the national PLT website is not of much interest to those who responded to this questionnaire. The largest percentage of respondents (68.4%) indicated that they visited the website “to no extent” while only 21.7% indicated “to some extent.” The reasons most often given for lack of use were lack of time, no need to use the website, and not using the internet to any significant degree. However, those who did use the site reported that it helpful for talks and for workshops. Some reported that the site needed to be updated more frequently. (Question 14)

### **Maine Tree Foundation Website.**

The Maine Tree Foundation website seemed to fare only slightly better than did the National PLT website. Approximately 62% of the respondents indicated that they use the website to “no extent whereas 26% reported to “some extent.” The reasons for not using the website more were similar to those given for the national site: not using the internet very often and lack of time. (Question 15).

### **CD ROM. Maine Forests Forever.**

Approximately 66% of the respondents indicated that they had the CD but less than one-half actually use the CD to any extent (56% reported using it to “no” extent.) [Questions 19 A and 19 B] For those who did not use the CD, it was noted that it was “too difficult” for their students and that there was “not enough time” to use it. One person reported that the CD would not work in her school computer. However, most of those who reported using the CD felt that it was “very good” or a good source “of basic information.” Some felt that they needed more copies (classroom quantities) to make the CD more usable in the classroom.

Many respondents expressed an interest in obtaining a copy. These people should be provided with a copy of the CD as soon as possible (see response forms to determine who expressed an interest in obtaining a copy.)

## **THE PLT WORKSHOP.**

An overwhelming number of respondents (more than 90%) felt that the PLT workshop activities were relevant and that the strategies and teaching and instructional methods were helpful. (Questions 20,21) These respondents indicated that the workshops helped them to understand important concepts, helped them to prepare curriculum, covered the “heart” of the PLT program, were well taught by experienced and confident workshop leaders. (Question 20). It was also reported that the materials used provided a lot of new ideas, experiential learning activities, insights into teaching multiple learning styles, and that the materials and strategies employed were useful for many educational settings and not just for environmental education.

## **PLT USE AND SPECIFIC SUBJECT AREAS.**

### **All Subjects.**

Nearly all respondents indicated that PLT is an appropriate environmental education for their schools (87.4% positive response.) [B1]

### **Science.**

Of all the subjects taught in the schools of Maine, it was reported that PLT is used to the greatest extent with the science curriculum. More specifically, 56% reported “to a moderate extent” or better with an additional 34% indicating “to some extent.”(B2). PLT was also reported as being compatible with the science curriculum (78%) [B3]. However, a large percentage of the respondents (83%) felt that PLT should be used more extensively in the science programs (B4).

### **Social Studies.**

It was reported that PLT is used in conjunction with the social studies program to “some” or to “no” extent by 84% of the respondents (B5). However, a significant percentage (44%) of the respondents felt that PLT was compatible with their school’s social studies program (B6) and felt that it should be used more with the social studies program (more than 90%) [B7].

### **Language Arts.**

A significant number of respondents (49.4%) reported that PLT is used with their language arts program to “no extent” while 39% reported that PLT is used to “some” extent (B8). However, a greater positive shift is noted in that some respondents feel that PLT is compatible with the language arts program and an

even greater percentage shift is observed for using PLT more extensively with language arts. (B-8-10).

### **Mathematics.**

PLT is used, for the most part, to “some extent” (27%) or to “no extent” (60%) with the math programs (B11). However, a significant percentage (74%) feel that it is to “some” or to a “moderate” extent compatible. Approximately 84% feel that it should be used more extensively with the math program. (B13).

## **SUPPORT FOR PLT IN THE SCHOOLS.**

Approximately 42% of the respondents reported that they feel that teachers support the use of PLT in the schools between a “moderate” and “great” extent. About 46% report that they feel that teachers support its use to some extent. Only 8% feel that there is no teacher support. (B14).

Administrative support for PLT use in the school appears to enjoy about the same degree of support as indicated by the teachers. However, there is a more positive shift to “considerable” and to “great” extent for the administrators. That is, it was felt by the respondents that teachers supported PLT to a “considerable” or “great” extent about 15% while they perceive administrative support for these same categories to be approximately 24%. More than 40% of the respondents felt that parents support PLT to a moderate-great extent and nearly 50% feel that parents support its use to “some” extent. (B16)

## **PLT AND PLANNING FOR TEACHING.**

Most respondents indicated that they use PLT when preparing lessons to “some” extent, whereas about 45% report using PLT when preparing lessons between a “moderate” and a “great” extent. About 2/3 report that PLT has enhanced their overall curriculum needs to at least a moderate extent. That figure climbs to about 93% if to “some extent” is included.

About 26% reported that PLT could do no more to help address their classroom needs while only 4% felt that a great deal could be done. Half of the respondents felt that PLT could address their curriculum needs from “some” extent to a “moderate” extent. Unfortunately the comments provided did not identify any ways that PLT could be of greater help. “Time constraints” seemed to be a big problem, but PLT has no control over that variable. One suggestion was for PLT to link activities to technology resources. Most of the comments provided praised the PLT program.

## **PLT AND TREE LINKS.**

Most respondents report positively that Tree Links is aligned with the Maine State Learning Results (84% positive response) and a significant number (52%) report using the Tree Links alignment to at least a “moderate” extent or greater. However, only about 32% reported using Tree Links while planning or developing units of study. By far, the greatest percentage (38%) report using Tree Links to “some” extent.

## **USE OF OTHER ENVIRONMENTAL EDUCATION RESOURCES.**

Other environmental education resources are used to varying degrees in the teaching of environmental education. Other resources most often mentioned were: Project Wild, WOW, Project WET, Food, Land, and People, and the internet.

## **PROJECT LEARNING TREE AND NATURAL RESOURCE SPECIALISTS.**

Natural Resource Specialists responding to the questionnaire expressed nearly unanimous support for the PLT program. They also described many ways that they currently use PLT in their work. Please see the “DATA” section of this report for their responses.

## **PROJECT LEARNING TREE AND FACILITATOR WORKSHOPS.**

Please see DATA section of this report for numbers of workshops given over the past 1, 2 and 3 year periods.

# **CONCLUSION AND RECOMMENDATIONS**

## **CONCLUSION.**

According to the responses provided in this evaluation, Maine PLT is functioning extremely well and everyone responsible for its operation can feel justifiably proud of its accomplishments. The program is clearly meeting most, if not all, of the PLT state and national goals to a significant, at least, extent. PLT is being used by educators and, according to respondent perceptions, is having a beneficial effect on both the educators and children of the State of Maine. PLT has been reported by the users as being a relevant, effective, easy to use, stimulating, and meaningful program beneficial to students and educators alike. Of considerable importance in this evaluator’s opinion, is the extraordinary effect reported by the respondents relative to program impact in fostering more positive environmental attitudes and behaviors on the part of students. An astounding 87% positive response was given to achieving this very difficult and most

elusive goal of environmental education. Indeed, the PLT State Coordinator, executive committee, Maine Forest Service, Maine TREE Foundation, and the national PLT office should be commended for providing an outstanding program for the children, educators, and ultimately all of the citizens of the State of Maine.

## **RECOMMENDATIONS.**

While, according to the responses provided by the respondents in this evaluation, the Maine PLT program is functioning exceptionally well and, perhaps, can even be considered an exemplary program, there are some areas in which the program could be improved. The following recommendations are offered for consideration by the decision-makers and those responsible for program management and delivery. It is recommended that:

- consideration be given to offering, in addition to the workshops for new users, a refresher workshop for the existing cadre of PLT users on, perhaps, a 1 or 2 year cycle to help share information, upgrade the skills, and to motivate, and “re-energize” existing PLT users.
- additional efforts be devoted to publicizing the PLT national website and the Maine Tree Foundation website. It should be noted that a considerable number of responses indicated that the respondent was unaware that the websites existed. For starters, the existence of these websites should be publicized on a regular basis in PLT publications and other professional publications as well.
- greater initiatives be taken to encourage PLT users to attend PLT conferences. In this survey, only 33 of the respondents indicated that they attended a conference. Many noted that they didn’t know that conferences existed. However, those that did attend felt that they benefited both professionally and personally from the experience.
- make more copies of the CD ROM available to PLT users across the state. More than 1/3 of the respondents didn’t have the CD and many expressed a desire to obtain it.
- consideration be given to providing more than 1 copy of the CD ROM to users. Many respondents noted that they needed more than 1 copy for effective instructional purposes. Alternatively, allow and/or promote the users to make additional copies of the CD provided for educational use.
- consideration be given to offering the CD ROM at PLT workshops for new users and at refresher workshops. Also consider distributing the CD at teacher workshops where prospective users can be guided, “hands-on,” through the process of using the CD in the classroom, ideas for incorporating it into their teaching and curriculum, etc. In essence, those who have actually used the CD in the classroom clearly like it.
- efforts be made to promote the use of PLT with subjects other than science. Surely, environmental education should be considered a

important part of all curricula and, as research has shown, all curricula can be enhanced by incorporating environmental education. Sample activities used in workshops should be chosen that emphasize the social studies, language arts, mathematics, arts, etc. dimensions of PLT. The myth the environmental education is only appropriate in science education must be dispelled. Perhaps joint initiatives and activities in conjunction with professional education organizations in Maine that focus on the social studies, language arts, mathematics, the arts, etc. can be helpful.

- even though Maine PLT apparently enjoys considerable support from both school administrators and parents, additional support is warranted. Consideration should be given to making periodic presentations at professional school administrator meetings and conferences, parent-teacher meetings, etc. Perhaps, a good starting point would be to present the results of this evaluation – particularly Part A of this report – to these groups.
- greater efforts be made in making state educators aware of Tree Links and how it can be used on planning for teaching.
- consideration be given to offering workshops periodically for Natural Resource Specialists not teaching in formal grade K-12 schools (various state agency personnel). Benefits can be derived from sharing experiences and exploring opportunities offered by the PLT program which will better meet the specific needs of these professionals.

**MAINE PROJECT LEARNING TREE**

**STATE PROGRAM EVALUATION**

**Winter 2003**

**FINAL REPORT**

**Submitted by**

**Dr. Louis A. Iozzi, Professor  
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**Submitted to**

**Maine PLT Coordinator  
Maine PLT Executive Committee**

**Final Report Submitted**

**10 March 2003**

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**M E M O R A N D U M**

**FROM**

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10 March 2003

To: Pat Maloney, Maine PLT Coordinator  
From: Louis A. Iozzi  
Subject: Final Report – Maine PLT State Evaluation

I am pleased to submit the enclosed report to you. This report combines the data collected from the original survey (spring 2002) and the most recent survey. As you can see, the results of this “combined data” evaluation report are very similar to those indicated in the first report. Some figures showed small increases over the last report while others showed small decreases. Few of the changes are, in my estimation, statistically significant; almost none are educationally significant.

As I noted in my previous cover letter, you and everyone affiliated with the program should be both very pleased and, quite frankly, very proud. Surely, you and your colleagues and everyone involved with presenting PLT to the various audiences of the State of Maine should be congratulated. All of the citizens of Maine – particularly the children who are the “end” recipients of the Maine PLT program – certainly profit from your efforts.

If you require any further information or elaboration on any aspects of the enclosed report, please do not hesitate to contact me. Again, congratulations for doing a great job.