



# Welcome and Introduction

Adapted from the on-line Teachers Guide

<http://mff.dsisd.net>

MICHIGAN STATE  
UNIVERSITY  
EXTENSION



# **MICHIGAN FORESTS FOREVER TEACHER'S GUIDE**



## **Welcome!**

This website was particularly designed for Michigan teachers. After the initial publication of the website [<http://mff.dsisd.net>], a number of teachers requested PDF documents of the on-line material. While nearly all the web pages can be printed directly from an Internet browser on only a few pages, the PDF documents combine pages to better include similar topics. Of course, "hardcopy" files are updated less often and cannot contain the dynamic page-linking of a website. The PDF documents are also formatted similarly so that all of the website content can be downloaded for printing or digital storage. This revision of the MFF project was funded by the Michigan Forest Foundation through a grant to MSU Extension.

Not included in these PDF documents are the on-line Internet references, keyed pages to the Michigan education standards and benchmarks, and the linked activity suggestions.

The MFF project is an effort to provide information for teachers and classrooms about forestry, especially concerning Michigan's forests. There is a clear need to emphasize "forest management" material, simply because we could not find much "out there" on the topic and because a number of teachers have requested this sort of information. More importantly, Michigan has nationally outstanding forests, a long history of forest management, and forests and forest industry is vital to our state (and not just in monetary terms).

The USE and MANAGEMENT of Michigan's forest is critical to the future well-being of not only Michigan residents, but is integrated to the health and well-being of North America and the rest of the world. Good forestry provides some of the finest examples of "thinking globally and acting locally" that our State has to offer.

We hope that the "Michigan Forests Forever" materials will be used state-wide in an effort to heighten the awareness among school children about the vital connection between people and forests. While it is true that "forests don't need people", it is equally true that "people need forests". Without thoughtful planning and management, the demands we place on our forests will overwhelm the forest's natural ability to provide them.

Finally, we hope the materials provide an easy-to-use, easy-to-understand, and easy-to-implement resource for the classroom. Your suggestions are always welcome.

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## **Introductory Files and Five Topical Sections**

### **Introduction**

Forestry Fun Facts  
FAQs About Forestry  
Background Essays (four of them)  
MFF Glossary

### **Section One - Tree Basics**

Forest Descriptors  
Tree Identification  
Michigan Forest History  
Land Survey  
Map & Compass  
Forest Trends

### **Section Two - Forest Environment**

Tree Physiology  
Forest Ecology  
Wildlife Ecology  
Forest Health  
Nutrient and Water Cycles

### **Section Three - Wood Products**

Michigan Forest Industry  
Getting Wood to Market

### **Section Four - Forest Recreation**

Forest Ownership & Recreation Activities

### **Section Five - Balance**

A Forestry Primer  
Forest Management Systems  
Tree Planting

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## **Credits for the Michigan Forests Forever Project**

One goal of this Teachers Guide is to provide as much material as possible free from **copyright infringement issues**. Nearly all the material is "fair game" for any educational effort. Only in a couple circumstances is acknowledgement needed for material. Also, a number of natural resource professionals and Michigan educators have reviewed the content of these pages for accuracy and balance. We thank them for their time and consideration in the development and improvement of this educational tool.

If portions of this website are used for educational materials, please cite "Bill Cook, Michigan State University Extension" as the source. If a full citation is requested for non-commercial publications, please cite "Bill Cook, Michigan State University Extension, Agriculture Hall, Room 108, Michigan State University, East Lansing, MI 48824-1039". For commercial applications, please contact Bill Cook via email at [cookwi@msu.edu](mailto:cookwi@msu.edu).

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### **Website Host and Server Maintenance**

Delta-Schoolcraft Intermediate School District  
2525 Third Avenue South  
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### **Images**

[Beetle Life Cycle](#), image #0284015, [ForestryImages.org](http://ForestryImages.org), Painting by Richard Kliefoth, Photo by Ronald F. Billing.

*Asian Long-horned Beetle*, American Pest

*White Pine with Blister Rust*, [ForestryImages.org](http://ForestryImages.org), Jana Albers, Minnesota DNR.

*Sudden Oak Death*, Photo: P. Svihra, UCCE, Marin County, [www.suddenoakdeath.org](http://www.suddenoakdeath.org)

*Asian Ladybird Beetle*, USDA Agricultural Research Service.

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*Historical logging photos in the Wood Products Section*, Minnesota Historical Society (copyrights in effect).

*Hydrologic Cycle Image*, Institute of Water Research, Center for Remote Sensing, Michigan State University.

### **Great Lake Images**

Michigan Sea Grant College Program  
Michigan State University  
334 Natural Resource Building  
East Lansing, MI 48824-1222

### **Historical logging photos in the Wood Products Section**

Use of these images in formal material need to be credited as follows.

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### **Michigan Curriculum Framework Links**

Charlotte Kindler  
Escanaba Junior High School  
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Escanaba, MI 49829

### **Hydrologic Cycle Image**

Institute of Water Research  
Center for Remote Sensing  
Michigan State University  
115 Manly Miles Building  
East Lansing, MI 48824

### **Project Learning Tree**

Many of the activities on this website reference Project Learning Tree (PLT) activities. PLT has copyrights on these activities but has granted permission to provide outlines to render a general ideas of what each activity covers. There are two PLT activity books, one for Pre K-8 and another for high school (recent revisions). There are also a number of special modules available through PLT in 2004. For more information about PLT, visit the national website at [www.plt.org](http://www.plt.org) and the Michigan PLT website at [www.michiganplt.org](http://www.michiganplt.org).

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**The Right Choice.** [Temperate Forest Foundation](#). 12 minutes. Choosing a career in forestry.

**A Forest Vision.** [Temperate Forest Foundation](#). Sustainability and the role of forest management.

**Two Sides of Fire.** [Temperate Forest Foundation](#). 15 minutes. The roles of fire, western oriented.

**The Miracle Resource.** [Temperate Forest Foundation](#). 14 minutes. Forests and wood as a renewable choice.

**The Dynamic Forest.** [Temperate Forest Foundation](#). 15 minutes. Forest ecology and dynamics.

**Circle of Life.** [Temperate Forest Foundation](#). 28 minutes. Production and consumption of natural resources.

**America's Forest; A History of Resiliency and Recovery.** 1993. USDA Forest Service and the Forest History Society. [Temperate Forest Foundation](#). 23 minutes. U.S. forest history since European settlement.

**Materials and the Environment II.** [Temperate Forest Foundation](#). Global social, economic, and ecological consequences of raw material consumptive choices. Features Dr. Jim Bowyer, University of Minnesota.

**Managing Aspen in the Lake States** (item 03746). [Minnesota Extension Service](#). 27 minutes.

**Forests: Providing Habitat For All.** 1999. [The Michigan Society of American Foresters](#). 14 minutes. How wood moves from the forest to a home built in cooperation with Habitat for Humanity. Contact [Bill Sterrett](#).

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