

NEW YORK FOREST OWNERS ASSOCIATION



NEWSLETTER

WESTERN FINGER LAKES CHAPTER

October, 1996

Volume 9, Number 5

A WOODSWALK WITH ROOTS!

Implementing & Developing a Stewardship Incentive Program

by Eileen VanWie

Jim & Barbara Minor purchased a 210 acre parcel in the town of Hector, Schuyler County, in January, 1994. But there were more roots involved than their interest in trees. The first homesteader in the town of Hector, was William Wickham. Mr. Wickham purchased his property in the fall of 1790 and settled in what became the town of Hector in the spring of 1791. Jim is a descendent of William Wickham on his mother's side of the family. The property is only 25

minutes from Jim & Barbara's cottage on Cayuga Lake, which was built by Jim's great grandfather, on Jim's father's side of the family. We were treated to a boat ride on Cayuga Lake at the cottage after the woodswalk.

Another tidbit of information, and reason to practice good stewardship of the land/forest, is this parcel of land filters water for

(Continued on page 3)

Special inside...

two pullouts:

- VideoTape Index to "The Great American Woodlot" series and
- Intranet download on "Recreational Forest Trails: Plan for Success"

MEETING DATES

Wednesday, November 6th, 7:30 pm. Cornell Cooperative Extension, 249 Highland Avenue, Rochester, NY. *Property Rights During Hunting Season.* See inside for details.

Wednesday, January 15th, 1997, 7:30 pm. Cornell Cooperative Extension, 249 Highland Avenue, Rochester, NY. Panel discussion with representatives from the forestry community. Further details in our next issue.

Wednesday, March 5th, 1997, 7:30 pm. Cornell Cooperative Extension, 249 Highland Avenue, Rochester, NY. Topic to be determined.

STEERING COMMITTEE MEETING (All Members Welcome)

Tuesday, December 17, 1996, 7:00 pm. Department of Environmental Conservation A Frame Building. Routes 5 & 20 in Avon.



Forester Bruce Robinson (right) explaining some of the aspects of the Stewardship Incentive Program (SIP) during the woodswalk on Jim and Barbara Minor's property in Schuyler county.

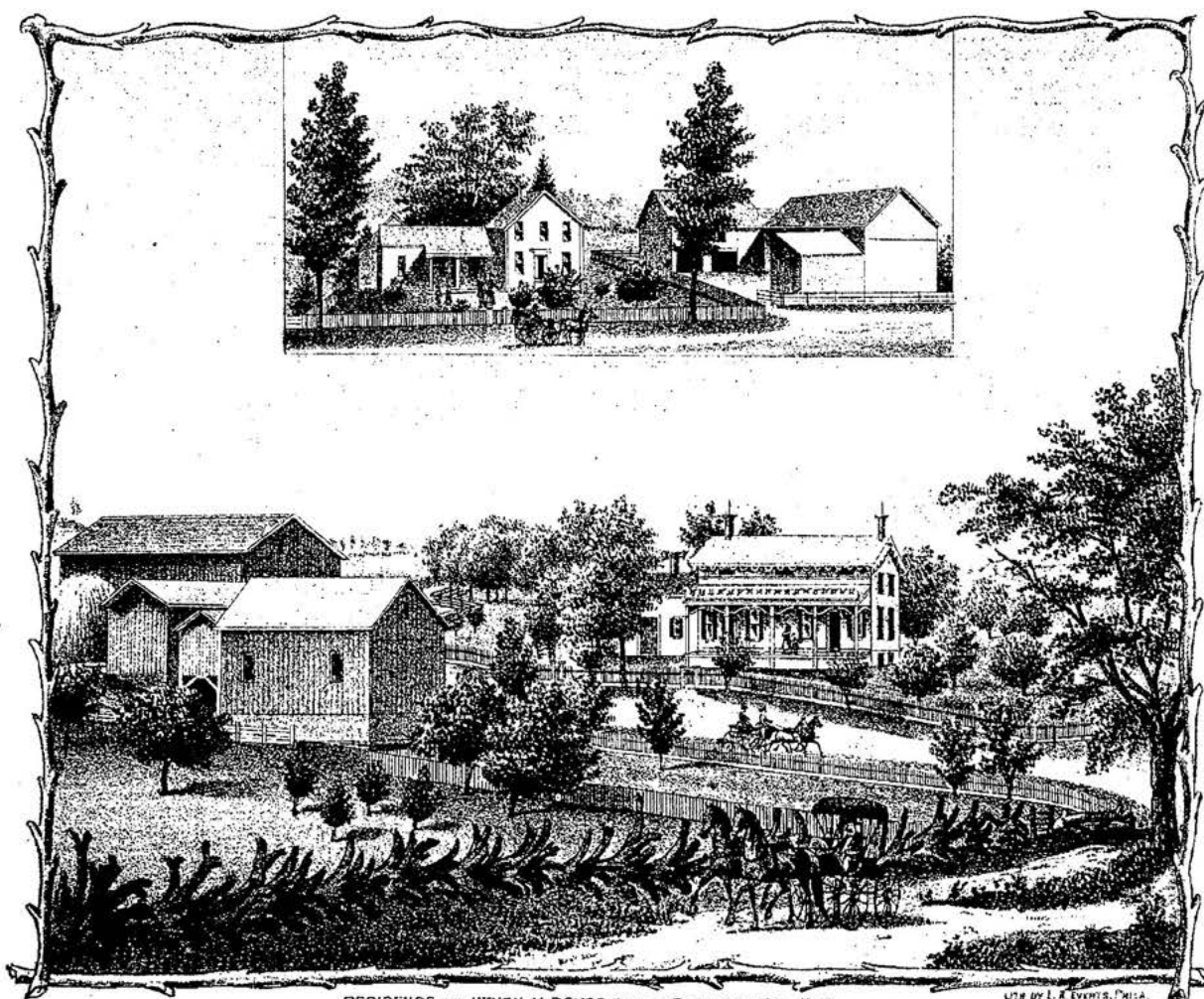


HENRY M. BOYCE.



ELIZABETH BOYCE.

PHOTOS BY R. O. CHAM.



RESIDENCE OF HENRY M. BOYCE, HECTOR, SCHUYLER CO., N. Y.

ENGRAVED BY L. A. EVERTS, PHILA.

The Henry and Elizabeth Boyce Farm as it appeared ca. 1879, almost 30 years after they first settled it. The structures are long since gone, except for the loose stone foundations. The Boyce farm comprises the heart of what is now the Minor property. Walnut trees and some fruit trees are found in the immediate area of the house. The area in front of the house is now a small embanked pond. The road in the foreground is Morris Road which was abandoned some years back but there are still some stump-fence remains along it. It is unclear as to the meaning of the house in the inset although their son, David, settled further down Morris Road. Source: "History of Schuyler County New York", 1879.

**Woodswalk- Continued from
page 1**

two watersheds. The map of the property shows a NYS drainage divide (which traverses the southern portion of the state in this regions) going through this property. Water falling on the north side of the property flows to Taughannock Creek, thence to Taughannock Falls, and into Cayuga Lake. Then it flow into Lake Ontario and then to the St. Lawrence, making this the southern edge of the St. River watershed! On the southern side of the property, the water flows into Cayuta Lake, the Susquehanna River and into Chesapeake Bay, making the property part of the northern end of the Chesapeake Bay Watershed!

But I digress, the focus of the woodswalk, Saturday, August 10th, was "Developing and Implementing a Stewardship Incentive Plan (SIP)". Jim & Barbara had heard of SIP and decided it looked like something they should apply for. They contacted Jim Pitt from DEC who referred them to the CSDA regional office in Glens Falls to pick up the necessary forms. Private consulting forester, Bruce Robinson, was hired to oversee the management plan and help implement it. Bruce also helped advise on the application.

The four areas of the SIP Program applied for were:



NYFOAns enjoying the view northward across the Taughannock valley from the uppermost portion of the Minor's farm/woodlots (1800 foot elevation at this point).

SIP 1: Actually writing a management plan. The plan was approved September 19, 1995 and will end in March of '97. When the management plan was completed by Bruce Clark and the reimbursement request was subsequently submitted by Jim, the turn-a-round time was surprisingly quick. The check was back in just a little over a week, even though it came from a bank in Kansas City Missouri!

SIP 2: Reforestation (tree

planting & all materials necessary) & Afforestation (planting trees where they have never been). Jim & Barbara were approved for one acre of seedlings or hardwoods which they plan to concentrate along the hedgerows of their several fields. They purchased 100 tubes to use on the seedlings. So far, 50 have been placed. These tubes are very important as the neighbors have seen herds of as many as 70 deer roaming the property.

SIP 3: Forest Improvement, which includes thinning, grape vine removal and crop tree management. Five acres were approved in the SIP plan for this category. There is a concern that in one 10 acre stand the succession is going in the wrong direction. The Hickory and Oak are being crowded out by the Beech and Maple. Five acres are scheduled to have the Maple Beech selectively cut in December with the rest completed next year.

SIP 9: Forest Recreation Enhancement, includes design/layout for trails & recreation. Jim & Barbara applied for 10,000 feet and were approved for 3,300 feet. So far, the scheduled bulldozing for trails has been delayed. However, there is an old carriage road running across the property that would make a good seasonal-use trail. Jim & Barbara spent several weekends following the woodswalk clearing this trail by hand. The road was overgrown with multi-floral rose and hawthorn, some with



Examining the dug well in front of the Boyces' farmhouse (old house foundation is to the right of this picture.)

intertwined branches as thick as a leg. Although they wore leather gloves and clothing, Jim reports that his sleeves weren't quite long enough and his wrists took the brunt of the clean-up. (While doing this work they saw a falcon drop onto the trail 50' behind them one afternoon with its freshly caught prey, a medium sized bird. It didn't offer to share!

The old carriage road comes down to an area where a foundation from a house is still visible. A dug well, fruit trees, and some of the plantings (flowers, lilacs) are still near the foundation. The Schuyler County Centennial register printed a picture of the original settlers-owners, Henry & Elizabeth Boyce (see page 2).

The four SIP categories, outlined above, to improve the forest and fields will keep them good stewards of the land, plus bring them much personal satisfaction. They are preserving their "roots" for many years to come. It was a pleasure to see the beginning stages of this SIP plan unfold. Thanks, Jim & Barbara, for a great woodswalk!

UPCOMING NOVEMBER MEETING

by Dick Dennison

Our November meeting will be held on Wednesday, November 6th at 7:30 pm at the Monroe County Cornell Cooperative Extension, 249 Highland Avenue, Rochester, NY.

Ron Schroder, Senior Wildlife Biologist with DEC in Avon will speak on "Property Rights During Hunting Season." Aspects to be considered include the DEC party permit system; Leasing rights; How to post your land; and Devastation of seedlings by deer. An interesting and timely topic. Hope to see you there!

At the poet says about
Autumn... "Be less
beautiful or be less brief."

IMAGE

by Mark Keister, Forester, NYS DEC

At a recent statewide DEC Forestry meeting the main theme focused on our image. For the past few years our program staff has been cut repeatedly, leaving morale within our Bureau at a new low. A grass roots "Outreach" committee of DEC foresters was organized to deal with this issue. I believe it is worthwhile to pass on some ideas this committee has recommended.

Of prime importance is society's need to be aware of the benefits of forest management. Most people do not have a clue what a forester's job entails or what programs the DEC's Bureau of Forest Resources provides to the people of New York State. The forestry profession in the U. S. has not done a very good job of providing this information. In a recent trip to Vietnam, one of the poorest countries in the world, I saw a billboard regarding forestry and reforestation, in both Vietnamese and English. When was the last time you saw a forestry billboard in New York? (Smokey the Bear does not count!) I bet in a random sample more people in Vietnam than in New York State could correctly answer the question... "What does a forester do?" It is no wonder our programs are cut when most of the taxpayers are not aware of what we do. We have no image rather than a bad image.

The DEC committee, has made many worthwhile suggestions such as labeling our vehicles with a "Forestry" sticker, improving our internal communications by producing a staff newsletter, utilizing our state forests more for public education and outreach, and using volunteers to help spread the word. However, the facts are the DEC is unlikely to get any additional resources in the near future to be able to increase our outreach efforts.

This is where NYFOA and the DEC have a tremendous opportunity to benefit each other, through NYFOA volunteers helping with outreach activities. NYFOA will benefit by potentially strengthening DEC programs and we could probably provide better and timely assistance to

the membership. Management of New York's forest lands would improve with increased public knowledge of forestry. The DEC's forestry department and NYFOA would gain recognition and public support, once the public is aware "we" are making a positive, long-term influence on these resources.

How can this be done? It first starts with enthusiasm! The public needs to become enthusiastic about the potential of the forest resource. NYFOA members could volunteer their efforts in areas of public awareness.

A prime example is our chapter's participation at the Pittsford Harvest Festival, September 28th. There are eight NYFOA volunteers hosting a woodswalk as part of the day's activities. Other examples are: guest speaking at your local school, businesses, or service organizations; preparing and distributing display materials such as flyers, bulletins and posters; making your elected government officials aware of forestry issues and voicing your opinion to them; becoming more involved in NYFOA programs; expanding advertising of NYFOA programs to the general public; and networking with groups of similar interests such as the Finger Lakes Trail Association, Nature Conservancy, Wild Turkey Federation, or American Chestnut Society.

I hope that some of these ideas have sparked your interest to volunteer with outreach activities. By working together we can help create the image, "Trees benefit us, every day!"

For details, contact any NYFOA Western Finger Lakes steering committee member listed in this newsletter, or contact me:

Mark Keister, Forester
NYS DEC
6274 East Avon-Lima Road
Avon, NY 14414
(716) 226-2466

A NEIGHORLY VISIT

by Jim Minor

My wife Barbara and I enjoy going on NYFOA outings as we pick up a good bit of information that is useful to us in planning work on our property but, in addition, is often interesting in its own right. In reviewing the Allegheny Foothills Chapter (comprised of counties in the Southwest corner of the state) NYFOA newsletter¹, we noticed a woodswalk that looked like quite a "grand tour" and so we made the trip to that region on Saturday, September 14th.

Our first stop was at the new Roger Tory Peterson (a Jamestown "native son") Institute just outside of Jamestown. The modern facility housed numerous items relating to the naturalist and artist's work, especially those relating to his acclaimed "Field Guide" series. They were also specializing in an exhibit of paintings and a few sculptures by noted artist Robert Bateman. We were introduced to the institute and its history by the Institute's director and then we were given a background on old trees and old growth forests by Bruce Robinson and DEC Forester Dennis Wilson.

We next took a short trip in our



The ubiquitous Bruce Robinson (right of center) pointing out features of Lily Dale's old-growth forest.

cars into Jamestown where Jamestown naturalist Doug Hoesington showed us the "Jamestown Oak", a massive tree which dates back to at least 1820.

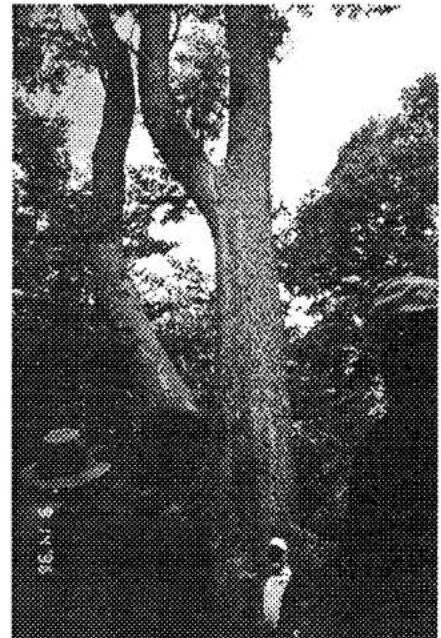
We then drove about 15 miles north of Jamestown to a private forest where we went a few hundred yards into the woods to see foresters had recently discovered the second largest black cherry tree in the state (the Allegheny

Foothills area is noted for being a good site for black cherry.)

Finally we went a few miles further north to the little community of Lily Dale, which was officially founded in 1879 but can trace its roots back to 1855. Its entrance archway states that it is the "world's largest center for the religion of spiritualism." (Barbara saw so many houses with signs posting



The Roger Tory Peterson Institute in Jamestown, NY. Barbara Minor is in the foreground.



Forester Dennis Wilson showing the second largest black cherry in New York State.

¹ In the future, I'll endeavor to post notices of upcoming woodswalks in neighboring regions when I get them in time for our publication.

"Mr. or Mrs. xxxxx, **Medium**" she couldn't help but wonder where the **Large and Smalls** got to live... sorry about that.)

Lily Dale has a fine old-growth forest and it was a real treat to walk among the straight, towering trees. It was pointed out that, as with so many old-growth forests, the understory comprises species rather different than the currently dominant ones and when they dominant ones pass on the forest will look considerably different even though, as one wag put it, "the hand of man has not trod."

We stopped to get some Concord grapes near Fredonia and then headed back to Rochester, thoroughly enjoying our Saturday with our most gracious neighbors to the west.

WELCOME NEW MEMBERS

We are happy to welcome the following new members to our ranks:

James McKeown.....Livonia
Walter Guseman & Cathy Dean..
.....Geneva
John Heiderich.....Naples
Richard & Phyllis Deal.... Ontario
Rick & Anne Hoyt.....Lyon

Please say "Hi" if you see them at our next meeting or woodswalk.

THE GREAT AMERICAN WOODLOT VIDEO SERIES

by Jim Minor

Our video librarians, Philip & Carol Fox (716 924-8978) are in possession of a real treasure... *The Great American Woodlot Video Series* on 13 cassettes.

The series of half-hour shows was originally presented in 1987 by the Maine Public Broadcasting network and are as relevant today as they were then. They deal with common issues around trees and woodlots and give views from across the U.S. (including one episode from Alaska). They often feature presentations from various state and national winners of "Outstanding Tree

Farm" awards. A couple of the episodes are from New York State.

Adjoining this section is a two sheet listing of the 13 tapes and their contents. Call Phil & Carol to arrange borrowing a copy to view them first hand.

A REPORT ON THE PITTSFORD HARVEST FESTIVAL

by Dick Dennison

Due to high winds and rain, our community service project of leading the public through the Hopkins Woods in Pittsford was canceled. We were concerned about safety among the huge old-growth trees.

By late afternoon a small but determined group was still waiting in the rain in anticipation of a woodswalk. So a tarp was tied on top of a hay wagon, the tractor started, and we headed for the woodlot where **Chuck Winship** and I guided several small, but highly enthusiastic groups. Perhaps half the people were families with children. In spite of the weather we had an enjoyable and productive afternoon.

This was the first time I had walked an old-growth woods. The Hopkins woods has never been clearcut. The large maples and oaks have an average age of 150 years. It was inspiring to walk among such magnificent old trees.

When I left the woods at 6:00 pm the weather was dreary: raining and nearly dark. **Chuck Winship** headed back into the woods. Three stalwart novices had convinced him to guide them in a search for the old oak tree, down by the swamp, which has a diameter of 4 feet. An old growth forest can have an impact on people.

I want to thank the volunteer guides for taking time to prepare for helping to construct the trail: **Bill and Jane Bernatovich, Sarah Kersting, Jim Minor, and Don Wagner**. In addition, the men from the Western New York Old Growth Forest Survey provided invaluable expertise: **Jim Battaglia, Bruce Kershner, Roger Janezic and Chuck Rosenberg**.

SCANNING THE ISSUES

by Jim Minor

As your newsletter editor, I receive copies of the newsletters from the other NYFOA chapters. From time-to-time I copy articles from those newsletters that I feel might be of interest to readers of this newsletter.

NEWS AT DEC

*from the September Capital District
NYFOA Newsletter; Mike Greason,
Editor*

A recent Forest Service report indicates New York strongly leads the northeast twenty states implementing the Stewardship Incentives Program (SIP). Since its inception in 1991, New York forest owners have gained: 807,000 acres of forest management plans qualifying them for SIP cost sharing; reforested 2,790 acres under SIP-2; precommercially improved 9,718 acres of woodland under SIP-3; installed 107 acres of windbreaks under SIP-4; protected soil and water resources on 723 acres under SIP-5; improved 130 acres of riparian or wetland acres under SIP-6; improved 5,887 acres of wildlife habitat; and enhanced recreational opportunities on 33,690 acres.

This means that since the beginning of DEC's service forestry program with the creation of the New York Forest Practice Board in 1946, forest management plans have been prepared covering more than 9,000,000 acres. To place this in perspective, there are 14.5 million acres of privately owned forest in the state. Plans are developed at landowner request only; so programs are more effective than they have been acknowledged to be.

A LITTLE LEVITY

*from the May/June AFC (Allegheny
Foothills Chapter) Newsletter; Betty
Densmore, Editor*

1960's arithmetic test: "A logger cuts and sells a truckload of lumber for \$100. His cost of production is four-fifths of that amount. What is his profit?"

'70's new-math test: "A logger exchanges a set (L) of lumber for a set (M) of money. The

VIDEOTAPE INDEX: "GREAT AMERICAN WOODLOT" SERIES

Great American Woodlot
Orono, Maine 04469

Maine Public Broadcasting Network, 1987
Introductions by Rod Blumenstock, Extension Forester, University of Maine

"A television series intended to provide forestry information for private landowners and the general public. Knowing what to do, when to do it, and how to go about it are the keys to wise use of our forests."

PROGRAM I

1. 1983 NATIONAL OUTSTANDING TREE FARM

Maple Sugaring and Christmas Tree Growing
*Dave Marvin, Owner
Johnson, Vermont*

2. Urban Forests and Forestry

*Jim Nighswonger, Extension Forester
Kansas State University
and Ron Fehr, Assistant Director,
Manhattan Parks & Recreation
Tree City USA, Manhattan, Kansas*

3. WILDLIFE MANAGEMENT PLANNING

Part I: Developing a formal plan for a successful
wildlife habitat here, on 357 acres.
*Craig Tufts, Urban Wildlife Director,
National Wildlife Foundation,
NWF Demonstration Area, Virginia*

4. Family Forestry Expo

Comparing past practices with today.
*Bruce Johnson and Bob Logan,
Extension Forester,
Oregon State University
Roseburg, Oregon*

5. Unusual Sources of Income

Pine straw harvest from long-leaf pine.
*Mike Gray reporting for
North Carolina State University and
Bill Stanton, Extension Forester
North Carolina*

6. VIEWPOINT

The Family Woodlot, bridges to future generations.
*John Hendee,
Dean of Forestry,
University of Idaho*

PROGRAM II

1. 1986 SOUTHERN OUTSTANDING TREE FARM

Full Time Tree Farming
*Al Lansing, Owner
Pike County, Mississippi*

2. EQUIPMENT: Chains Saws Purchasing and Using

*Dan Tilton, Safety Instructor,
Rye, New Hampshire*

3. WILDLIFE MANAGEMENT PLANNING

Part II: Ponds
*Craig Tufts,
Urban Wildlife Director,
National Wildlife Federation,
NWF Demonstration Area, Virginia*

4. Forest Succession

*Tim Fahey,
Assistant Professor of Forest Science
Cornell University, New York*

5. EQUIPMENT: ATV Utility Trailer Attachments

New Brunswick, Canada

6. VIEWPOINT Silviculture

*Neil Sampson,
Executive Vice President,
American Forestry Association,
Washington, D.C.*

PROGRAM III

1. Most Northern Tree Farm 15 acres (mostly birch)

*Les Viereck, Owner,
Fairbanks, Alaska*

2. EQUIPMENT: Chain Saws Safety, Kickbacks

*Dan Tilton, Safety Instructor,
Rye, New Hampshire*

3. WILDLIFE MANAGEMENT PLANNING Part III: Cover, food

*Craig Tufts,
Urban Wildlife Director,
National Wildlife Foundation,
NWF Demonstration Area, Virginia*

4. Logging with Horses A pair of 7 year-old Belgians

*Mike Gray reporting
with Clyde Morris, Owner, North Carolina*

5. WOODLOT MANAGEMENT

Forest planning in a 25 acre private woodlot
John Kelley, Owner, New York

6. VIEWPOINT

Land ethics: Individual responsibility versus regulations

Lloyd Irland,
Maine State Planning Office,
Maine

6. VIEWPOINT

Woodlots and Clean Air

Neil Sampson,
Executive Vice President,
American Forestry Association,
Washington, D.C.

PROGRAM IV

1. Ruffed Grouse Management

Private Development

Jim Matschulta, Connecticut

2. WILDLIFE MANAGEMENT PLANNING

Part IV: Trees and Brush for Cover

Craig Tufts,
Urban Wildlife Director,
National Wildlife Foundation,
NWF Demonstration Area, Virginia

3. Woodlot Boundaries

Use of Maps and Compass

Joel Swanton, Maine

4. Woodlot Streams

Maintenance and Quality

Virginia Polytechnic Institute
and State University,
Blacksburg, Virginia

5. EQUIPMENT: Chain Saws

Safety/Clothing

Dan Tilton, Safety Instructor,
Rye, New Hampshire

PROGRAM V (currently not available)

1. OUTSTANDING TREE FARM

German Management Style

Waldo Kick, Minnesota

2. EQUIPMENT: Chain Saws

Felling, 90° Notch

Dan Tilton, Safety Instructor,
Rye, New Hampshire

3. Wild Turkey Management

Research Program

Gary Hurst, Mississippi

4. EQUIPMENT: Small Tractors

Equipment Conversions

New Brunswick, Canada

5. 4H Forestry Camp

West Virginia

PROGRAM VI

1. 1984 SOUTHERN OUTSTANDING TREE FARM

Family tree farm over the generations: Pulpwood & Philosophy

Tom Ross, Owner
Lincoln County, Arkansas

2. EQUIPMENT: Chain Saws

Limbing and Bucking

Dan Tilton, Safety Instructor,
Rye, New Hampshire

3. 1986 NATIONAL OUTSTANDING TREE FARM

Ruffed Grouse habitat demonstration site.

Harry Chandler, Owner
Groton, Vermont

4. Agri-Forestry:

Douglas Firs, KMX (Non-cone Monterey-Pine),
Eucalyptus; Forage Crops; Cattle and Sheep

Bob Logan, Extension Forester, Oregon

5. EQUIPMENT: Small Saw Mill

Family-run business

G. A. Haywood
with Rhett Davis, Montgomery Extension Agent
Troy, North Carolina

6. Forest Preserve

1700 acre community project. Education of youngsters

Hollis Nichols, Founder,
Beaver Brook Environmental Education Center,
New Hampshire

PROGRAM VII

1. 1984 NEW ENGLAND OUTSTANDING TREE FARM

Releasing and thinning different species. Building a new home in the woods using forest products.

Les Barden, Owner
Rochester, New Hampshire

2. EQUIPMENT; Wood Splitters

Demonstration and safety tips

Dan Tilton, Safety Instructor,
Rye, New Hampshire

3. RUFFED GROUSE MANAGEMENT

Building Habitat

Gordon Gullion,
Professor of Wildlife,
University of Minnesota

4. Lumber Grading: Bucking for Grade

Applying grading rules

*Virginia Polytechnic Institute
and State University,
Blacksburg, Virginia*

5. Black Walnuts

Genetic improvements by grafting for supertrees

*Walt Beineke,
Associate Professor of Forest Genetics,
Purdue University, Indiana*

6. VIEWPOINT

Soils and Trees

*Neil Sampson,
Executive Vice President,
American Forestry Association,
Washington, D.C.*

2. Watershed R&D

Effect of timber harvest practices on plant nutrients and runoff. Acid rain data.

*Wayne Martin, Research Forester
U.S. Forest Service
Hubbard Brook Experimental Forest
New Hampshire*

3. RUFFED GROUSE MANAGEMENT

Grouse in winter and Aspen as prime habitat.

*Gordon Gullion,
Professor of Wildlife,
University of Minnesota*

4. Tree Nursery

State supported reforestation.

*Pat Kraft, Nurseryman
Mississippi Forestry Commission
and Bob Daniels, Extension Forester
Mississippi State University
Wanoma State Nursery, Mississippi*

PROGRAM VIII

1. 1983 NORTH CENTRAL OUTSTANDING TREE FARM

Strip Mining Recovery with 100,000 trees planted.

*Frank Newell, Owner/Forester
Vinton County, Ohio*

2. EQUIPMENT: Brush Cutter

Safety/Utility

*Peter Orzech, Safety Instructor
Rye, New Hampshire*

3. RUFFED GROUSE MANAGEMENT

Cover management both by an individual and a utility.

*Gordon Gullion,
Professor of Wildlife,
University of Minnesota*

4. Tree Nursery

Commercial seedlings from native pine cones

*Bill Almy
Western Maine Nursery, Maine*

5. Protecting Trees From Disease And Insects

Stevens Point, University of Wisconsin

6. VIEWPOINT

Wildlife in a Southern Pine plantation that has ongoing management including clearcutting

*Dr. George Hurst,
Professor of Wildlife
Mississippi State University*

5. Hybrid Larch

50% Faster Growth than Red Pine

*Adrian Hagen, DNR Forestry Commission
LaCrosse, Wisconsin
Cooley Forest, Sparta, Wisconsin*

6. VIEWPOINT

Historical and regional perspective on forestry practices and regulations.

*Ernie Gould, Economist
Harvard Forest, Massachusetts*

PROGRAM X

1. Woodlot Profitability

Good Example for Non-Industrial Private Forest Owners (NIPF's)

*Bob Mealy, Property Owner and President,
Oregon Small Woodland Owner's Association
Albany, Oregon*

2. Timber Growth in Low Moisture

Thinning- Important Tool

*Tom Hennessey,
Associate Professor of Forestry,
Oklahoma State University*

3. WILDLIFE MANAGEMENT

Emphasis on Habitat: food, water, and cover.

*Gary Goff, Extension Associate
Cornell University, New York*

4. Fire as a Management Tool

Treating 10,000 Acres per Year

*Mike Grey, reporting
with Terry Sharp, Wildlife Biologist
and Bill Gardner, Extension Forester
North Carolina*

PROGRAM IX

1. 1984 NATIONAL OUTSTANDING TREE FARM

Having a good management plan.

*Richard Heck, Owner
Hanvoer, Indiana*

5. History of Shelterbelt Planting

FDR's vision realized.

*Max Craighead,
Extension Forester Emeritus,
Oklahoma State University*

6. VIEWPOINT

Project "Learning Tree": Environmental education program aimed at educators and students.

*Kathy McGlaughlan,
American Forest Council
Washington, D.C.*

2. Growing Wood for Personal Use

Firewood, construction, and furniture.

*Gary Moll,
Owner/Forester
American Forestry Association,
Maryland*

3. Woodcock Management

Need for unique diversity for survival.

*Greg Sepik, Wildlife Biologist,
U.S. Fish and Wildlife Service
Moosehorn Wildlife Reserve, Maine*

4. Forest Fire Fighting

Promotional clip... what smoke jumpers do.

USFS Jumpers, Montana

5. Small Operation Maple Syrup Production

Basic equipment and operation.

*Carl Vogt, Extension Forester,
University of Minnesota*

6. WOODLOT MANAGEMENT

Thinning for Woodlot Health (Improvement cuts)

Stevens Point, University of Wisconsin

PROGRAM XI

1. 1985 NATIONAL OUTSTANDING TREE FARM

Hardwood timber stand improvement. Starting a conifer stand.

*Mike Demeree, Owner
Bainbridge, New York*

2. Penobscot Experimental Forest

Study of silvaculture practices on softwood timber types: clearcutting, strip cutting, shelterwood, and selection systems.

*Bob French,
Research Forester,
U.S. Forest Service
Maine*

3. Flooded Forest Becomes Heron Rookery

27 acre marsh created by beavers. Dealing with a unique, unplanned wildlife habitat.

*Stan Knowles, Owner & Extension Forester,
University of New Hampshire
and Tudor Richards, Wildlife Biologist
Southern New Hampshire*

4. EQUIPMENT: Portable Band Mill

Increasing Profit from the small woodlot

*Bucky Merrill
Old Town, Maine*

5. EQUIPMENT: Hand Tools

Felling Lever/Skid Cones and Pans/Snatch Blocks

New Brunswick, Canada

6. VIEWPOINT

Management of National Forests

*Neil Sampson,
Executive Vice President,
American Forestry Association,
Washington, D.C.*

PROGRAM XIII

1. 1985 NEW ENGLAND OUTSTANDING TREE FARM

Comments on Tax Issues: "Highest and best use, not current use."

*Ed, Martin, and Sally Morse, Owners
Wells, Maine*

2. Marketing Timber

Contacting a forester for good information.

*Tom Kroll, Forester,
Minnesota Department of Natural Resources
and Scott Reed, Extension Forester,
University of Minnesota*

3. WILDLIFE MANAGEMENT

Cutting Practices for Diversity

Stevens Point, University of Wisconsin

4. Leasing Hunting Rights

Improved public relations while obtaining better control of your land.

*Lloyd Lee McPherson, Owner
Blacksburg, Virginia*

5. WOODLOT MANAGEMENT

Economics of selective harvesting of eastern hardwood.

*Jim Grace, Extension Forester,
Pennsylvania State University
and Jim Finley, Extension Forester,
Pennsylvania State University*

6. VIEWPOINT

Woodland Owners' Forestry Associations

*John Sufferon, Executive Director,
Minnesota Forestry Association*

PROGRAM XII

1. 1985 SOUTHERN OUTSTANDING TREE FARM

530 acres, mostly Loblolly Pine with 60 acres of hardwood a family project for over 30 years

*Dr. Farrar Howard, Owner
Charles City County, Virginia*

cardinality of set (M) is 100. The set (C) of production costs contain 20 fewer points. What is the cardinality of set (P) profits?"

'80's "dumbed down" version: "A logger cuts and sells a truckload of lumber for \$100. His cost is \$80, his profit is \$20. Find and circle the number '20'."

'90's version: "An unenlightened logger cuts down a beautiful stand of 100 trees in order to make a \$20 profit. Write an essay explaining how you feel about this as a way to make money. Topic for discussion: How did the forest birds and squirrels feel?"

Contributed by Mark Kurtis

WORLD OF TREES: WHAT MAKES APPLES TASTE SO GOOD?

from an un-attributed newspaper clipping sent to the editor

Apples and autumns go together like pancakes and maple syrup. But did you ever wonder what makes apples taste so good? John Fellman, an associate professor of plant science at the University of Idaho, wonders about that a lot. Part of Fellman's job is to help apple producers stay competitive. Using sophisticated biochemistry techniques and good old-fashioned taste tests, Fellman and his colleagues are unlocking the secrets of apple flavor. It may not be too appetizing to think about, but one link is between fertilizer and taste. Proper rates and timing of nitrogen applications are important for enabling the trees to build amino acids, one of the compounds responsible for aroma and flavor in apples. Even the age of fruit-bearing wood can contribute to taste. In Fuji apples, for example, the best taste is from apples borne on 3-year-old branches. Genetics are important, too. Dr. Fellman is trying to discover what genetic materials control flavor. "Then we can give our information to the biotechnology people and let them see what they can develop," he said.

Producing good apples and storing them without loss of taste is especially important as global competition increases. Fresh apples can now be shipped from the southern hemisphere to compete with stored apples' from U.S. producers. Therefore, storage methods are another area under

scrutiny. But while the scientists worry and the growers labor to keep American apples the best - just pick a nice juicy one and enjoy it!

- James R. Fazio

FALL COLOR- INDIAN LORE

from the October, 1995, AFC (Allegheny Foothills Chapter) Newsletter; Betty Densmore, Editor

Long before chemists gage us unbelievable tales about yellow carotenoids and red or purple anthocyanin pigments, Native Americans knew the secret of fall coloration. Red foliage appeared because celestial hunters had slain the Great Bear and its blood dripped annually onto the forest. Yellows came from the fat splattering out of the kettle as the hunters cooked the bear meat.

TREES- NOT WHAT YOU MIGHT THINK

from a couple of articles from Wood Magazine, sent in by Jack and Joann McMahon

Foiled by a Forest: Director Michael Mann's search for a stand-in for a 1757-vintage forest where he could film parts of his movie, *Last of the Mohicans*, led him to North Carolina. There, around Lake James, was a forest that looked very much like the old-growth trees once typical in the upstate New York setting of James Fenimore Cooper's novel.

But according to the *Charlotte Observer*, Mann's choice was convincing but way, way off. The trees at the movie site were only 30 years old, having been planted after a clearcut. The forest products company that owns the land plans to clearcut the forest again in 20 years, when the trees finally reach maturity.

The Strychnine Tree: When bubonic plague, transmitted by rat-riding fleas, swept across Asia and Europe in the mid-14th century, physicians could do little but comfort the sick and dying. Before strychnine poison helped curb the epidemic by killing the rats, roughly half of Europe's population perished.

The strychnine tree (*strychnos nuxvomica*), native to Southeast Asia and

Australia, provides benefits other than varmint control. The peoples of Southeast Asia used limbs and boards cut from this tree to build their huts and to fence animals. Primitive hunters made arrow poison for hunting from the bark, roots, and disc-like seeds in the tree's fleshy orange-red berries.

In the 1800's, physicians added small amounts of strychnine to tonics as a stimulant, even though it's so bitter it can be tasted in concentrations of one part per 400,000. This powerful drug may have gotten its start killing game, but today, doctors, prescribe controlled doses to increase muscular activity, and as an antidote for alcohol and drug poisoning.

Wood Wins Out: Recent microbiological research at the University of Wisconsin strongly suggest that you can now toss out any plastic cutting boards you might have around. That's because tests there have shown that wooden cutting boards naturally do away with the bacteria of common food-poisoning agents, such as salmonella.

Although researcher's can't yet fully explain how wood does it, cutting boards tested eliminated 99.9 percent of all bacteria placed on them within three minutes! Under similar conditions, all bacteria that was placed on knife-scored plastic survived. However, wooden cutting boards treated with an oil finish acted very similar to plastic ones by upping bacteria's survival rate over unfinished cutting boards.

GREEN FIREWOOD NEEDS TO BE PROPERLY SEASONED

from James Dulley's Column in the September, 1995, Democrat and Chronicle

Question: I plan to use my fireplace this fall, but all I have is recently cut, green firewood. Is there any way to get wood to season fast so I can use it this year? -J.Z.

Answer: It is very important to use properly seasoned firewood, even in an open fireplace. Damp green logs are not only difficult to light and keep burning, but they fill your chimney with flammable creosote.

Later in the winter when you build a hot fire with well seasoned wood, a chimney fire may start. Many homes and lives are lost each year due to

chimney fires from creosote buildup. Have your chimney cleaned regularly.

You can usually tell if wood is seasoned by knocking two logs together. They should make a ringing sound, not just a dull thud. The ends of seasoned logs are usually checked and cracked.

The simplest and most efficient method to season wood quickly is by building a do-it-yourself Virginian solar dryer. In early spring, this solar dryer can also be used as a cold frame for starting plants. In the summer, it can be used to dry fruits and vegetables naturally. It is basically an 8-foot by 6-foot plywood box with a sloped clear front. Make the framing with 2x4 lumber and use 3/8-inch plywood to cover it.

The open front can be covered with clear plastic film, fiber reinforced plastic (FRP) or old storm doors.

Add several air outlet vents to the plywood top section and in the top of the sides near to back. Standard roof vents work well or you can make your own from sheet aluminum flashing.

Cut low inlet air vents in the bottom of the plywood sides near the front. Cover the vents with screening, especially if you plan to use it for food drying in the summer.

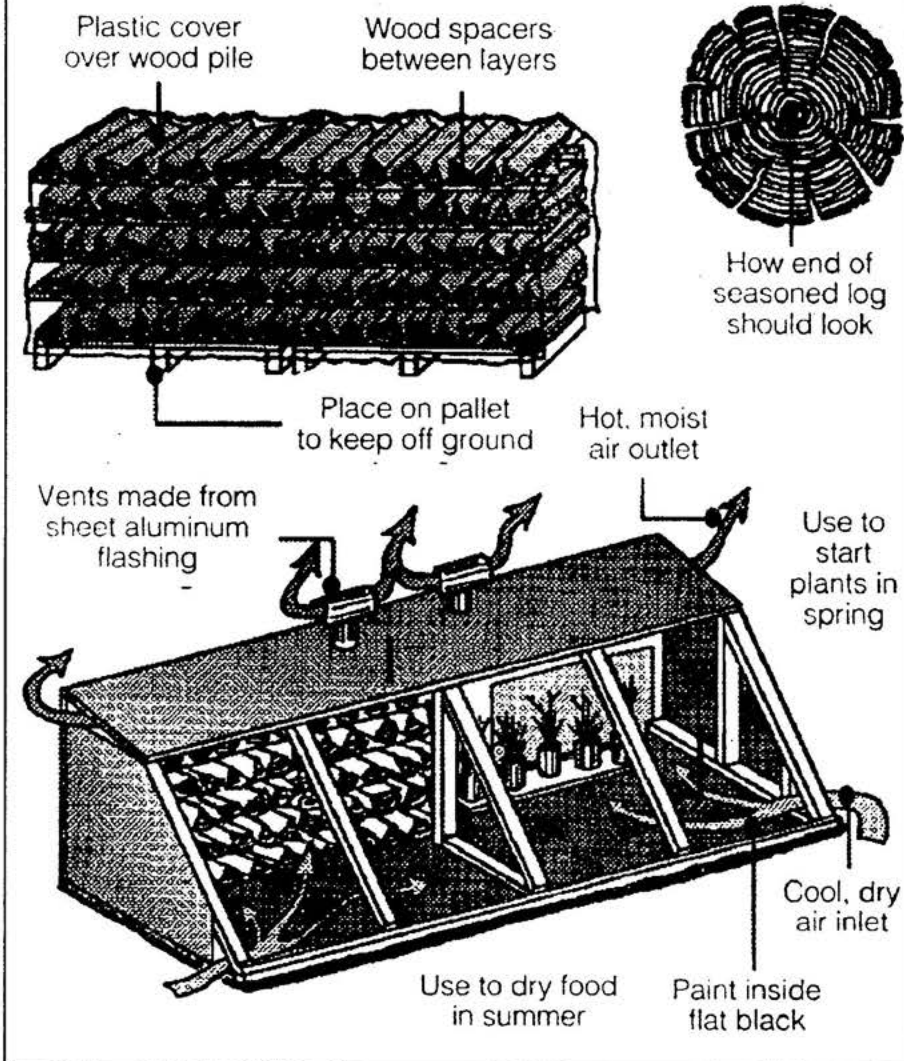
Paint the entire inside flat black and cover the floor of the dryer with black plastic film. The black color intensifies the sun's heat. Position the dryer so the front faces south.

This does two things, The heat creates natural air flow through the dryer. The hot air also reduces the relative humidity inside, so the wood dries faster.

Build two large doors in the back panel. When stacking wood inside, place small wood strips between each layer of wood. This provides air circulation between the layers. Stack the split logs with the bark side down.

Write me at: James Dulle, Democrat and Chronicle, 6906 Royalgreen Drive, Cincinnati, OH 45244, and ask for Update Bulletin No. 986 showing do-it-yourself instructions, illustrations and required materials list for making a Virginian solar wood/food dryer and cold frame and a heat content/selector guide for 60 types of firewood. Please include \$2 and a business-size Stamped Self-Addressed Envelope (SASE).

Solar wood/food dryer



FORESTRY INFORMATION IN CYBERSPACE

by Jim Minor

We're indebted to NYFOA (state) president, Bill Miner, for pointing out some good sources of forestry information on the Internet. One of them is The North Carolina Cooperative Extension Service of North Carolina State University (web address <http://www.ces.ncsu.edu/nreos/forest/foretext.html>).

There's some good information here (as there are at other web sites) but I thought the pamphlet they put together on "*Recreational Forest Trails: Plan for Success*" was especially good and so I've reproduced it here for your use. I'll try to pass on other noteworthy web information.



Recreational Forest Trails:

Plan for

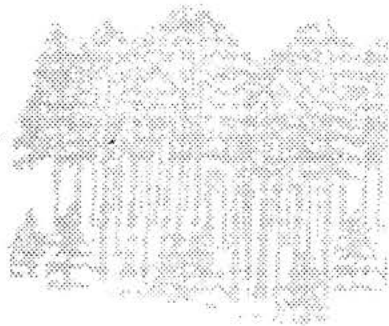
Success



North Carolina Cooperative Extension Service
North Carolina State University

Recreational Forest Trails:

Plan for Success



c o n t e n t s

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Recreational Forest Trails:

Plan for

Success

Trails are man-made pathways designed primarily for foot travel. Planned trails provide users with access to areas to learn, recreate, exercise, and to observe and interpret nature. Successful forest trails are planned to match the tract's resources with the intended users' needs.

Early trails were the travel routes to food, water, and shelter. Largely fashioned by animals during migration and daily travels, trails typically followed the contour of the land, snaked along watercourses, and climbed low mountain passes. Many of our oldest roads began as trails and were improved as transportation progressed from foot to horse to rail to automobile.

Trails offer relatively low-cost access to natural surroundings and require only minor maintenance when properly constructed. This note explores proven ways to plan, construct, and interpret various types of recreational forest trails.

Which Type of Trail?

Trail design should be set by the needs and interests of your intended users. Their needs will vary with age, physical ability, and interests.

These needs will affect trail characteristics like length, difficulty, slope, and layout. For young and elderly visitors, ease of walking and frequent resting spots would be paramount. Conversely, active youth and adult audiences may prefer a trail having a greater degree of difficulty, with steeper slopes and access to high bluffs or cliffs.

With audience needs clearly defined, select a theme for the trail. A theme gives purpose to your trail by exploiting the natural richness of the area. Trails designed around a theme will maintain interest and provide continuity. There are many options for trail themes.

General nature or education trails focus attention on scenery, history, geology, forest management and ecology, wildlife, wildflowers, flowering shrubs, or landscape features such as bottomlands, uplands, swamps, bays, pocosins, or wetlands.

Conservation trails highlight conservation and good management of soil, water, and vegetation through the stewardship of existing natural resources on farm and forestland. Points of interest could include seeded forest roads, conservation tillage, grassed waterways, contour farming, forest management sites, wildlife plantings, successional mowing and disking, and prescribed burning.

Soil or geology trails identify unique or subtle changes in the landscape by taking hikers past soil pits or profiles, rock outcrops, vegetation changes, eroded areas, slope changes, and land uses that are affected by soil properties such as stoniness, drainage, slope, soil depth, and productivity.

Water or wetland trails explore the force and impact of water by following streams, brooks, creeks, and rivers. The water theme can be linked to soil erosion, water quality, watershed protection, wildlife habitat, fisheries, vegetation and productivity changes, sedimentation control, and Best Management Practices. Do not overlook other options around bays, pocosins, swamps, beaver ponds, and farm ponds.

Forest stewardship or ecology trails exhibit the history of forest management and succession, the differences between natural and planted stands, differences in site productivity, impact of fire control and fire use, past cutting history, species diversity, tree or plant identification, stand maturity, seedling

development, differences between hardwood and softwood stands, wildlife use of various forest types, lightning strikes, and fire scares.

Historical trails highlight points of interest that can include evidence of old homesteads; Native American settlements; tenant homes; ornamental and exotic plantings within the forest such as daffodils, fruit trees, and shrubs; drainage ditches that are hand or mechanically dug; turpentine pits and old "catfaces"; gold prospecting pits; burrow pits; sites that evidence farm erosion and row-crop production; liquor still sites; fish weirs; old mill sites; sawmill sites; bark and sawdust piles; old dams; roads; railroad spurs;

cemeteries; mines; wells; springs; fencerows; rock piles; and chimneys.

Wildlife management or wildlife observation trails explore animal tracks, dens, nests, artificial nest boxes and nesting structures, signs of use, beaver dams and lodges, deer scrapes, den trees, red-cockaded woodpecker colonies, bird nests, brush and cover piles, forest and field edges, owl or eagle nests, wildlife plantings, prescribed burning areas, unique and critical habitat areas, and wildlife trails and travel ways. Simple observation decks and blinds can be erected to increase the enjoyment of the trail, especially around concentrated feeding areas.

Studying the Land

Reconnaissance and Preconstruction

Begin planning a trail by obtaining a legal survey description or plat of the property. Good choices are either a survey map of the property or a tax map (aerial photo) from your county tax office. Begin to identify major landmarks, including access roads, buildings, and power lines, on a photocopy of the map.

Transfer the boundary lines to a contour or topographic map (Figure 1). Topographic maps illustrate the physical features of the property and are useful in locating cliffs, watercourses, swamps, and other unique or problem areas. A topographic map of the property allows you to identify steep and difficult areas to be avoided when constructing the trail. You also can map major vegetation types, water bodies, clearings, existing roads, and rough topography.

Topographic maps are available from your Soil Conservation Service office, outdoor outfitting stores, survey or engineering supply houses, or directly from the U.S. Geological Survey. From the North Carolina Index you can locate your property and order the map or maps necessary to cover all of your property. The preferred map scale is 1 inch equals 24,000 feet.

If the proposed trail location will not follow a major watercourse or other land feature, you will need to survey the property systematically. By walking over the property you can record the location of key features and unique areas. The only true way to locate

all the important and unique interpretive items and objects is to use the *grid method* of surveying (Figure 2). The grid method, used frequently by foresters, requires sampling of the whole tract, ensuring that no key features are overlooked. The grid method allows for the systematic sampling of a property. Transect lines are established on a compass bearing that runs into the longest path across a property. Parallel lines are then followed so that a total "survey" of the property is made at a chosen distance—for example, 100 or 200 feet.

As you traverse the property, record roads, waterbodies, timber changes, or other major interest points on your map (Figure 3a). Flag important areas that are likely to be included in the final trail. Record all pertinent information in your field notes, as it will become the basis of your final layout (Figure 3b).

Once all of your property's features have been identified and flagged, begin a rough layout of possible routes on the field map. In laying out the trail, avoid straight lines by winding the trail to conform to the land's contour. Maneuver from one interpretive point to the next, flagging as you go, until all points have been connected (Figure 4).

With practice and thorough knowledge of the property, most people can design a successful trail. Remember that no amount of office preparation can substitute for actually inspecting the property. The following tips will help you create successful forest trails on your property.

Figure 1. Topographic map showing property location and boundaries.

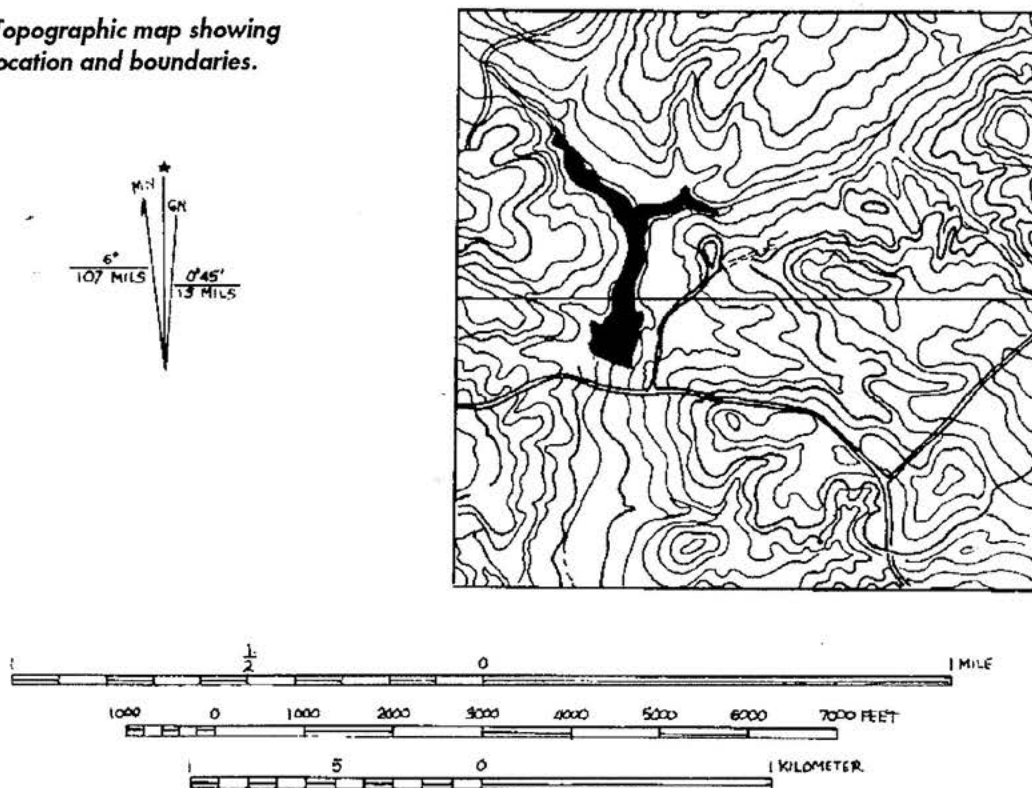
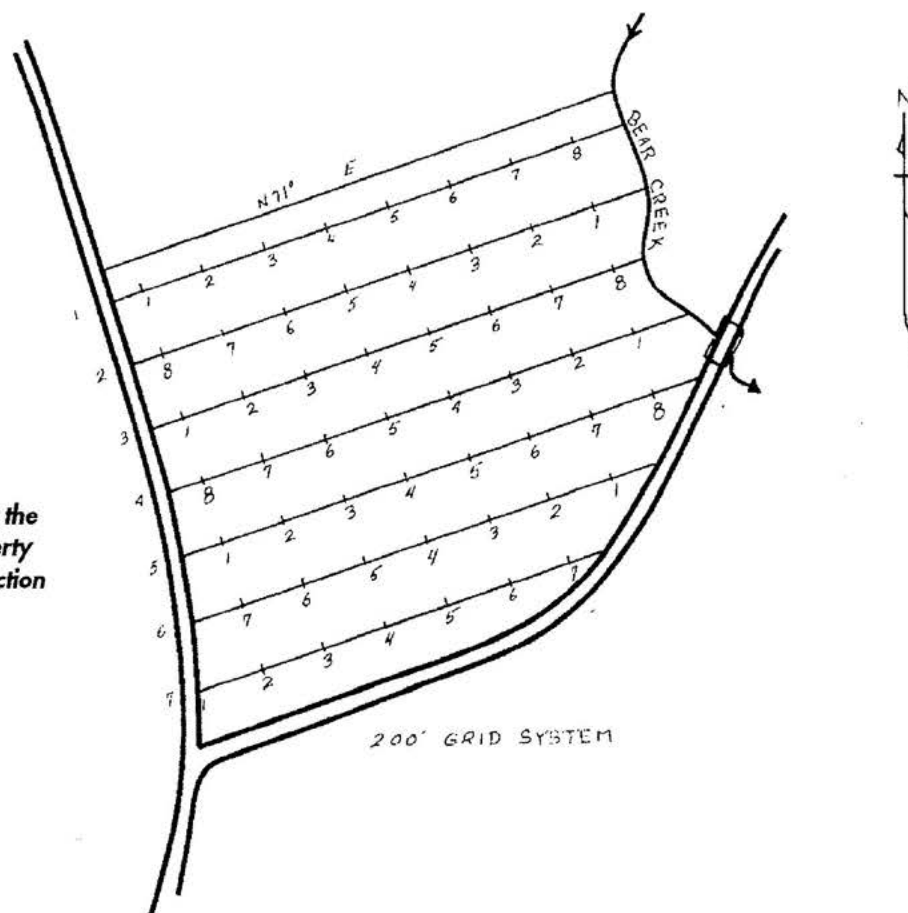


Figure 2. Establishing a grid is the first step in evaluating a property for trail layout. Parallel transection lines are oriented to offer reference points.



Woodland Owner Notes

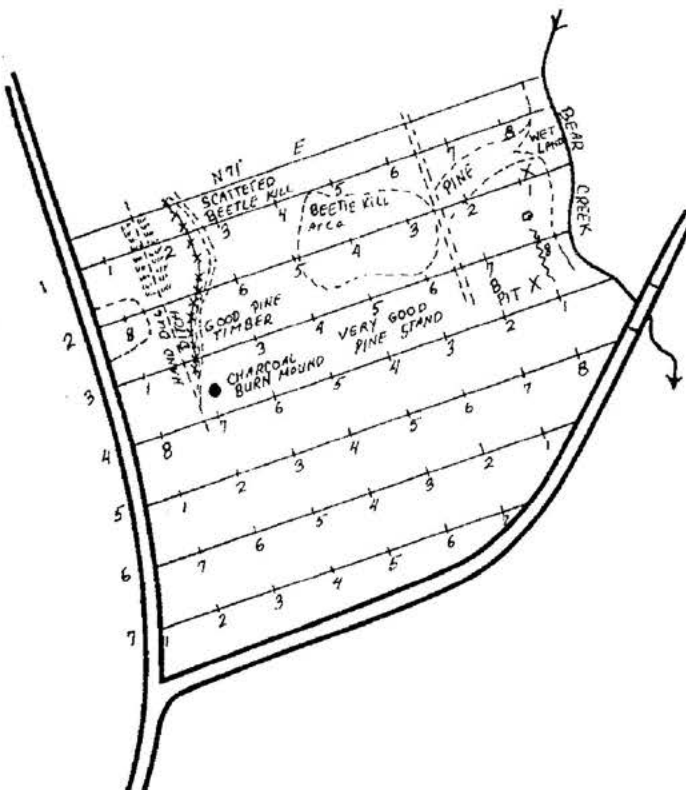
Favor trail placement in areas with

- well-drained soils
- natural openings
- scenic vistas
- open timber
- light brush and vegetation conducive to easy travel
- special historical, ecological, and natural features
- access to and view of water bodies or streams
- natural drainage, such as side slopes and gently rolling terrain
- natural contours, such as those along terraces
- seasonal differences and experiences
- safe crossings of roads, railroads, and power lines

- good access from parking areas
- minimal conflict with existing land-use or management activities.

For safety, environmental, and economic reasons *try to avoid* locating trails in

- wet and flat areas with poor drainage constraints
- frequently flooded bottomlands
- areas of unstable, fragile, or erosive soils prone to mud or rock slides
- areas where there are steep slopes and abrupt elevation changes
- areas that include bluffs, cliffs, and ledges, except where included for their scenic beauty
- locations requiring bridges or culverts



LINE 1
(PLOT)

1. PINE-SCATTERED BEETLE KILL
DITCH - W/S
2. HUM-POPLAR-SCATTERED PINE
3. PINE - 35 1/2 AVE. 12" DBH - 2 109 8A 120
4. " " " " " " " "
5. " " " " " " " "
6. LARGER PINE BUT NOT AS HIGH 8.A.
GOOD LOG ROAD
7. RIDGE W/ MIX PINE-HWB
8. " " " " " " " "
WET LAND ALONG CREEK

LINE 2
(PLOT)

1. LARGE PINE/HWB (DEER STAND)
2. EDGE OF BOTTOMLAND HWB W/ PINE
GOOD LOG RD
3. TOTAL BEETLE KILL W/ GOOD REPR.
PINE & POPLAR
4. - SAME
5. - EDGE OF KILL AREA (SCATTER PINE)
6. - PINE - 35 1/2 AVE 12" DBH - 2 109 8A 120
FENCE & LOG ROAD
7. PINE-POPLAR-HWB
DITCH N/S
8. YOUNG PINE FIELD

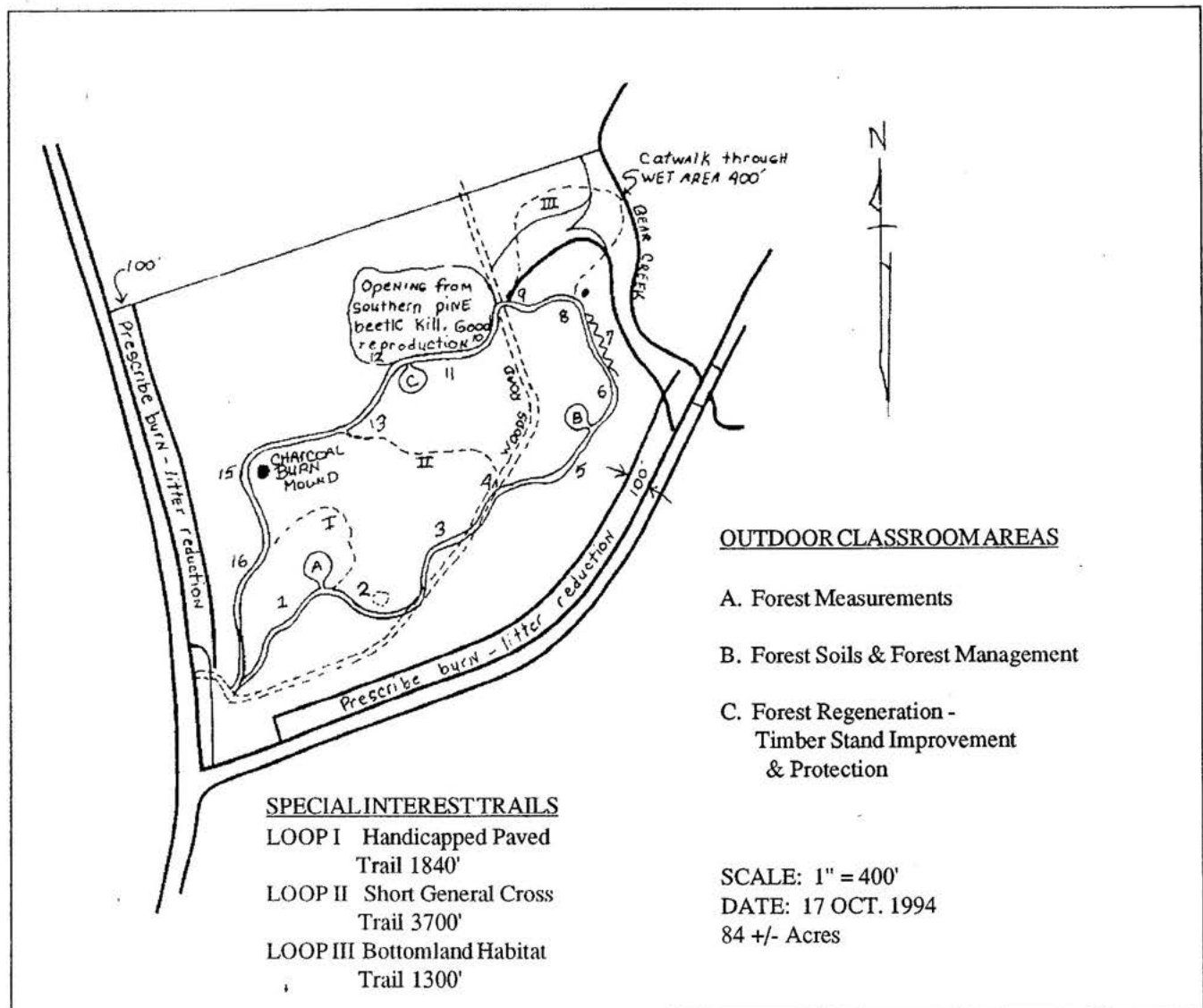
Figure 3a (left). Take field notes and locate transition areas and points of interest that can be connected by the final trail.

Figure 3b (right). Take detailed notes of items and their location while conducting your field survey.

Recreational Forest Trails: Plan for Success

- ❑ areas of heavy vegetation requiring excessive clearing and periodic pruning and maintenance
- ❑ areas with fragile vegetation or rare and sensitive habitats
- ❑ cultural and archeological sites, except where featured as a part of the trail
- ❑ places where visitors could have adverse effects on wildlife or other resources
- ❑ timbered areas subject to blowdown, falling limbs, or lightning strikes
- ❑ road and rail crossings where sight distances are limited
- ❑ old mine areas and other natural or man-made hazards
- ❑ areas requiring multiple switchbacks or retaining structures.

Figure 4. Your final layout map should include interpretation points of interest and trail location.



Designing, Laying Out, and Constructing a Trail

Trail Layout

The final layout of a trail can be flagged or painted so that subsequent clearing and construction can proceed with minimal supervision. The key to success in trail design is to define and follow clear objectives. Most important, *keep it interesting!* Keep these points in mind when laying out the trail.

- Vary trail alignment and direction.
- Avoid sameness by varying vegetative cover.
- Take advantage of natural features and diversity.
- Feature beautiful overlooks and vistas, seasonal landscapes, and clearings.
- Change the grade periodically but strive to maintain the trail on midslope positions to promote good drainage and minimize erosion.
- Keep trails inconspicuous, natural, and suitable to the land. The purpose is to heighten the "natural experience," not to construct another four-lane highway.
- Design a trail that tantalizes the senses: sight, smell, touch, and hearing.
- Avoid monotony by adding curves and zig-zags that add to the natural experience. Often the shortest distance between two points is the least interesting.
- Trail length can vary, but ½ to 1 mile is usually best.
- Create a loop or rough figure-eight trail that will return the user to the starting point. A connecting trail at the midpoint will allow visitors to choose a shorter or longer walk.

Trail Construction

After the trail route has been marked, construction can begin. Construction activities include tree removal, brushing or clearing, pruning, minor excavation, and occasional foot-bridge construction. Careful preconstruction planning can minimize the need for these activities.

Construction activities should be prioritized to accomplish the greatest amount of work within the available time and other resources. Brush clearing often yields the greatest return in defining the trail and opening it up to early use. Later, intensive projects such as removing trees, installing interpretive signs, or constructing bridges can be completed to refine the trail.

Trail clearing and brush removal can be accomplished with chain saws, mechanical brush cutters, hand saws, brush axes, regular axes, hatchets, loppers, and pruning saws. Hand clearing can be expensive and time consuming. However, labor availability may be the greatest obstacle to completing trail work. Greatest results are usually achieved when landowners can complete the work themselves.

Mechanized construction and clearing is often less expensive than hand labor; however, its use should be tempered by concerns for aesthetic and site disturbance. For instance a tractor-mounted rotary mower may make short work of brush control yet leave unsightly stumps behind. Clearly, some combination of mechanical and hand work is needed to complete trail construction in a timely and cost-effective manner. Let the individual landowner's interest and ability as well as local conditions be your guide.

Trail Width, Clearing Heights, and Grade Specifications

Trail width varies with intensity and type of use. Short recreational or interpretive trails to be used for small groups should be wider than lightly used, longer trails. Trails should be at least 2 to 4 feet wide; however, tread width cannot exceed 6 feet if the trail is to be eligible to receive Stewardship Incentive Program (SIP)* funding. Widths of 6 to 8 feet are needed for pleasure walking and in areas with steep dropoffs.

Educational or interpretive trails must be wide enough to accommodate small groups, especially at points of interest.

*The Stewardship Incentive Program is a cost-share assistance program for landowners participating in the Forest Stewardship Program. Forest stewardship is the management of all the forest resources including wildlife, soil and water, recreation and aesthetics, and timber.

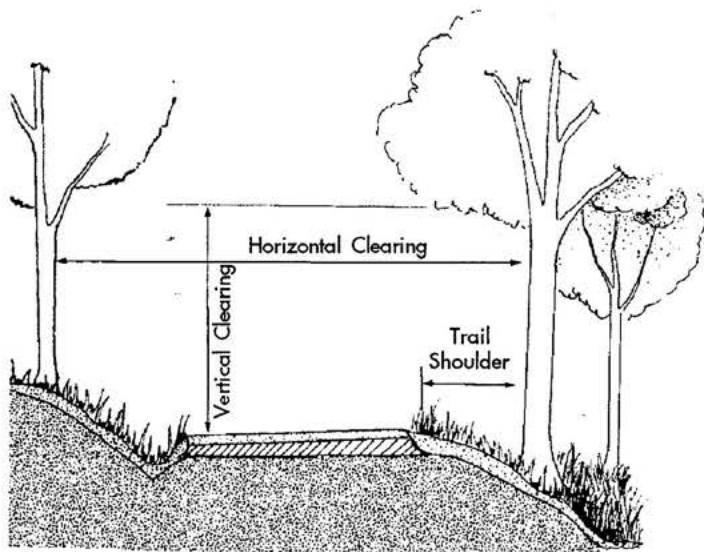


Figure 5. Trail clearing guidelines: Prune trees and shrubs 1 to 2 feet back from trail edge. Prune tree branches 8 to 12 feet above trail surface.

Clearing width should be at least 4 feet along the trail or 2 feet wider than the trail on either side of the actual walkway (Figure 5). Wind the trail around large, existing trees within the trail's path rather than opting for total removal, and prune those trees' lower branches back to the trunk.

Clearing should be kept to a minimum. In cleared areas, cut all brushy vegetation flush with the ground. Clear all hazards adjacent to and above the trail. Strategically located fallen logs and large rocks can be left in place to discourage vehicular use and add to the natural variety of the trail. On trails that will be used by school groups, make small clearings (turnouts) adjacent to points of interest that will allow group instruction.

Clearing heights should be at least 7 feet for foot trails, 8 feet for biking trails, and 10 feet for equestrian trails. Periodic maintenance and monitoring at different seasons of the year will be needed to prune drooping and ice- or fruit-laden branches.

The grade, or slope, of the trail is the single most important factor in design and layout. The trail grade influences the length of the trail, level of difficulty, and drainage and maintenance requirements. Avoid creating long, sustained grades that can be tiring and monotonous to users. Try to maintain gentle slopes

of 10 percent or less (less than 1 foot of drop over a 10-foot stretch). Gently undulate the grade to provide natural drainage and variation. Where steep grades are unavoidable, construct waterbars to slow runoff flow and to avoid erosion (Figure 6).

Periodic Maintenance. Natural processes are constantly shaping and altering the forests, and trails are no exception. Periodic upkeep and repair of trails must be scheduled at least annually. Some degree of mechanical or chemical control of resprouting brush will be required. Likewise, wooden and rock structures may need repair or replacement. Always build with weather- and rot-resistant materials to extend the life of structures.

To reduce the need to maintain and replace signs, consider using numbered signs keyed to an accompanying interpretive brochure that can be updated inexpensively as forest conditions change (Figure 7).

Periodic maintenance helps you avoid major construction. Schedule your maintenance in relation to the amount and extent of use. You also should consider the safety or liability constraints of your users. Maintenance on disability-accessible trails should include controlling weeds, preventing excessive cracking, and protecting the surface against erosion.

LOG WATERBAR

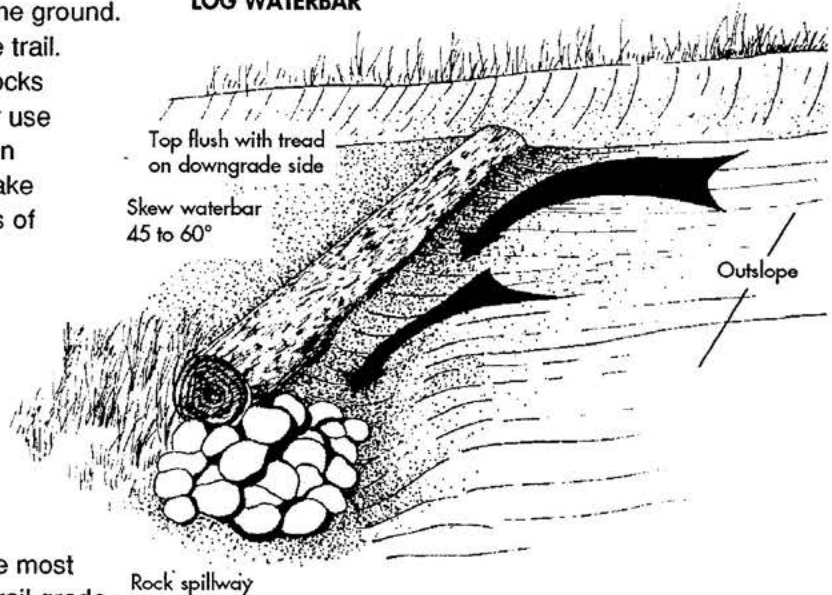

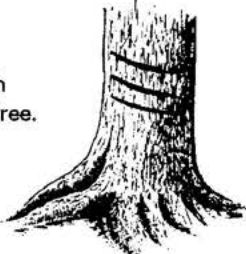




Figure 6. Waterbars are effective in controlling water flow on trails. Place them on long or steep grades to minimize erosion and the need for trail maintenance. A line of rocks can be used instead of the log to slow water flow. Bury two-thirds of each rock in the soil.

Surfacing Materials. Materials used to cover high-traffic and sensitive areas may need to be replaced or replenished periodically. When choosing these materials, seek out local supplies of natural bark,

Figure 7. An interpretive brochure is an inexpensive user's guide and can be altered as audiences and conditions change.

mulch, wood chips, sand, and gravel, preferably those that can be found on the tract. In wet areas with seasonal or standing water, surfacing is generally not feasible. In these areas use boardwalks, catwalks, decks, or log bridges (Figure 8) to provide access and minimize disturbance. Always provide handrails in deep-water areas and where boardwalk height is greater than 2 to 3 feet.

 <p>9. WOOD DUCKS Wood ducks can be attracted to farm ponds by providing nesting boxes. Note the difference in vegetation (low, wet areas compared to upland areas).</p> <p>10. BOUNDARY LINE Surveyors mark lines with three distinct cuts on the tree.</p> 	 <p>11. NATURAL REGENERATION Left to nature, a large number of low quality hardwood species will often take over the site.</p> <p>12. RUNNING GROUND PINE Often used for Christmas decorations. Could be used for natural ground cover.</p> 
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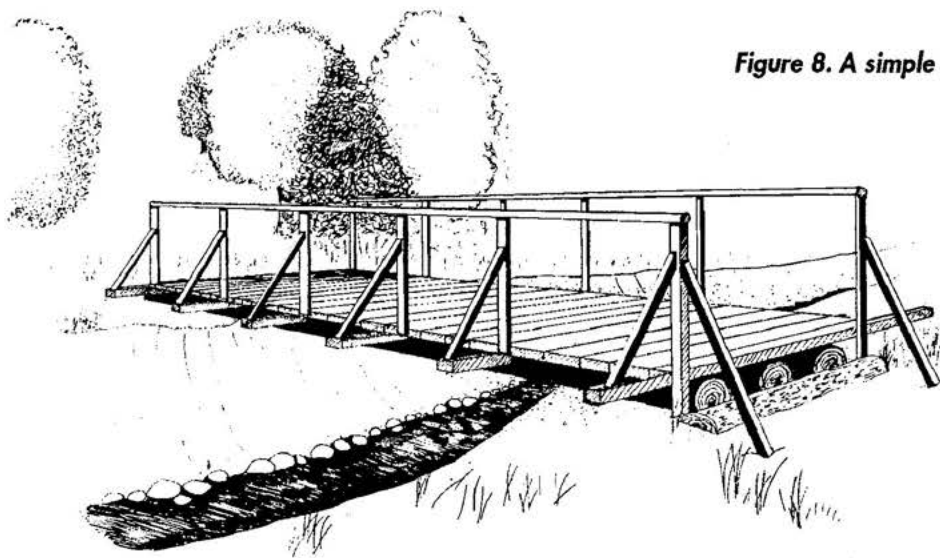


Figure 8. A simple bridge design.

Constructing the Trail for Maximum Accessibility

As a result of passage of the Americans With Disabilities Act of 1992, there is increased interest in modifying the design of trails to make them accessible to persons with disabilities and to older people. While no official standard exists for creating the ultimate in accessible trails, guidelines provided by the Uniform Federal Accessibility Standards provide a good

starting point. While it is neither possible nor desirable to have each trail conform to the standards listed below, strive to offer a variety of trails with different difficulty levels to meet the range of abilities and preferences of the prospective visitors.

Table 1 lists the design standards presently recommended for two levels of accessible trails.

Table 1. Accessible Trail Design Standards

	Easy	Moderate
Width ¹	4 feet (48 inches)	3 feet
Maximum grade	8% (1:12 slope)	10% (1:10 slope)
Sustained running slope	5% maximum	5% maximum
Distance allowed at maximum grade	30 feet maximum	50 feet maximum
Cross slope	3% maximum	3% maximum
Surface	Hard surface	Very firm, compacted surface
Edge and curbs	Provide 2-inch curb on downhill side.	Provide 2-inch curb at dangerous and difficult locations.
Railings	Provide 32-inch railings at dangerous or difficult locations.	Provide 32-inch railings at dangerous or difficult locations.
Small level changes	½ inch maximum	½ inch maximum
Rest areas ²	400-foot maximum interval	900-foot maximum interval
Passing space	200-foot maximum interval	300-foot maximum interval

Source: Based on *A Design Guide For Universal Access to Outdoor Recreation*, PLAE, Inc., Berkeley, CA. 1993.

¹ If route must pass through significant geologic features (rock formations) or between aesthetically important vegetation (large trees), the width may reduce to 36 inches for a maximum distance of 10 feet.

² Rest areas or landings are required at the top and bottom of each maximum grade segment and where trails change direction on maximum grade sections. (Landings must be a minimum of 60 inches long and the width of the trail).

Sources of Additional Information

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TOP TEN TRAIL CONSTRUCTION TIPS

1. Decide the purpose of the trail before beginning the planning process. Educational, recreational, and scenic trails differ in layout, design, and interpretation.
2. Know your users' needs and provide ample resting areas, benches, and pamphlets or brochures for their enjoyment. Plan carefully to save resources and avoid problems.
3. Hit points of interest. Maximize users' exposure to natural features, water bodies, and vegetation changes.
4. Keep the trail natural in appearance by blending it with its surroundings and by using natural and native materials in construction.
5. Follow the contour whenever possible to maintain a gentle trail slope with a grade of less than 10 percent.
6. Vary the direction of the trail to add variety.
7. Keep trail length between ½ and 2 miles; whenever possible, create a loop so that users can return to the starting point.
8. Trail width should be a minimum of 2 to 4 feet with a trailside vegetation clearing of an additional 12 inches on each side. Trails that will receive heavy use and trails on steep terrain should be 6 to 8 feet wide. Maintain an overhead clearing height of 7 feet for foot trails, 8 feet for bike trails, and 10 feet for horse trails.
9. In concentrated or heavy-use areas, trail surfacing may be required. Use low-cost native or natural materials such as wood chips, bark, or mulch.
10. Consider trail markers, informational signs, and brochures, especially on self-guided nature and interpretive trails.

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NORTH CAROLINA COOPERATIVE EXTENSION SERVICE

CLASSIFIED ADS

WANTED TO BUY / WANT INFORMATION ON POWER POLE SAW, NEW OR USED. CALL DALE SCHAEFER (367-2849) OR DICK DENNISON (586-9098).

FOR SALE- SHOW YOUR NYFOA COLORS...

NYFOA SHIRTS

LIGHTWEIGHT, SHORT-SLEEVE SHIRTS:

50/50 - \$8.00
100% COTTON - \$9.00

LIGHTWEIGHT, LONG-SLEEVE SHIRTS (100% COTTON)- \$13.00

SWEATSHIRTS \$16.00

INSULATED CAN WRAPS

\$3.50 EACH, 2 FOR \$6.50,
4 FOR \$12.00.

NYFOA CAPS

\$6.00 EACH

NYFOA SIGNS

PLASTIC, 12"x12" \$3.00

Additional items for sale include decals and patches.

THESE ITEMS CAN BE OBTAINED AT MEETINGS, WOODSWALKS OR BY CONTACTING EILEEN VAN WIE AT THE ADDRESS LISTED ON THE COVER (WILL NEED TO ADD POSTAGE).

WANTED- VOLUNTEERS TO WORK ON VARIOUS ASPECTS OF HELPING YOUR NYFOA CHAPTER RUN MORE SMOOTHLY AND DO MORE FOR US ALL.

GENERAL MEETINGS

(CONTACT DALE SCHAEFER)

- * VOLUNTEERS TO BRING COOKIES AND OTHER LIGHT REFRESHMENTS.
- * VOLUNTEERS FOR SET-UP BEFORE MEETINGS AND CLEAN UP.
- * HELP WITH SIGN-IN AND SALES TABLES.

WOODSWALKS

(CONTACT DALE SCHAEFER)

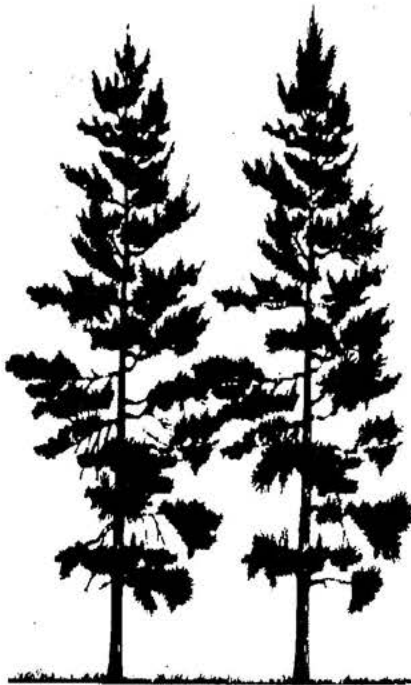
- * POSTING DIRECTIONAL SIGNS TO THE WOODSWALK
- * HELPING AT THE SALES & INFORMATION TABLE
- * HOSTING A WOODSWALK

STEERING COMMITTEE

(CONTACT EILEEN VAN WIE)

- * NEED NEW MEMBERS TO HELP PLAN MEETING TOPICS & WOODSWALKS FOR THE CHAPTER. MEETINGS ARE HELD APPROXIMATELY 5 TIMES A YEAR.

WANTED- ARTICLES AND IDEAS FOR THIS NEWSLETTER. CONTACT JIM MINOR AT (716) 247-7069 (EVENINGS & WEEKENDS) OR FAX DURING THE DAY TO (716) 726-4960 (WITH COVER SHEET).



When twenty years ago the county clerk placed my name on the title for this land, I sensed that here I could learn more than in any university. This is a school with better credentials, for here the universe itself administers, its lessons as varied and as plentiful as this hollow's forms of life.

I have tracked down many an idea in the card catalog of this moss; and in the shade of these trees, flipped through the leaves of many a sacred volume. In these forest passages the scriptures of nature can be read in their original versions, untranslated by religions, unedited, unabridged. This is the universe's university. The voices of nature echo along its corridors, and in them are truths that have inspired the genius of every age. If you are still, you might catch firsthand in the rustle of leaves what Shakespeare caught as "Tongues in trees, books in the running brooks, sermons in stone, and good in everything."

Ken Carey

Flat Rock Journal: A Day in the Ozark Mountains, 1994

The **NEW YORK FOREST OWNERS ASSOCIATION NEWSLETTER** is published for members of the Western Finger Lakes Chapter of the New York Forest Owners Association (NYFOA) and is published 4-5 times per year. NYFOA was founded in 1963 and is organized to encourage the wise management of private woodland resources in New York State by promoting, protecting, representing and serving the interests of woodland owners. The Western Finger Lakes chapter was founded in 1988 and encompasses Genesee, Livingston, Monroe, Ontario, Orleans, Wayne, and Yates counties.

Membership is open to anyone interested in understanding how to manage a woodlot. NYFOA membership can bring returns in the satisfaction of growing quality timber, stabilizing forest industries and markets, providing permanent jobs, increasing the value of your woods, enlarging areas of natural beauty across the state, and leaving behind a monument in living trees to bless the tomorrows for the boys and girls of today. For information on becoming an NYFOA member, contact Debbie Gill, NYFOA Secretary, NYFOA, P. O. Box 180, Fairport, NY, 14450 or at (716) 377-6060. Annual membership is \$20 for individuals and \$25 for families and includes: subscriptions to this newsletter; to the bimonthly NYFOA state-wide publication, **The New York FOREST OWNER**; attendance at chapter meetings; and at two statewide meetings. Membership at the Contributing level (\$30 - \$100) and Supporting level (\$101 & up) are also offered.

Readers are encouraged to submit articles for publication in the **NEWSLETTER**. Articles should be sent to: Jim Minor at the address below or FAX: (716) 726-9460. For FAXs please put a cover sheet addressing the document to Jim Minor. FAX transmittals can be confirmed during the day at (716) 726-9964.

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NEW YORK FOREST OWNERS ASSOCIATION



NEWSLETTER

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