Volume XXXIV

Published Annually by the Forestry Club

Michigan Technological University
Houghton, Michigan

Cover photo: The Ford Forest at Alberta, home again to the MTU Forestry Summer Camp. (Photo by Dumroese)

Gerry Hancock evaluates a Sugar Maple in the stands of Alberta (Photo by Essinger).
A Note From the Editor

This year's Forester began on very shaky ground as the financial cuts experienced by the University threatened its existence. The Forester staff, in order to raise revenue, sent out over 750 letters to prospective advertisers and later an appeal to the alumni. Through our efforts, and the generosity of our advertisers and alumni, we are proud once again to produce this yearbook. Unfortunately, the future is not too cheery. Each year our costs rise approximately ten percent, and we creep ever closer to retiring this Forestry Department tradition.

The theme of the 1983 Forester is summer camp. Whether you attended summer camp at Camp Pori, Alberta, or on the main campus, it is a memory that each of us as Tech foresters an relate to. Irv Ziemer, summer camp coordinator, is the recipient of our salute this year. He also supplied a portion of our feature article, tracing the roots of summer camp and the new improvements in its design. The rest of the section is comprised of the tales from the first students to return to Alberta for camp.

I wish to thank Nels Christopherson for the Forest Science Laboratory up-date on their topwood harvestor, Irv Ziemer and Charles Eshbach for their help, Mark Holden for his artwork, the volunteers who typed hundreds of addresses, and Dr. Crowther and my staff for their outstanding work. My sincere thanks must go to Kathy Teahan who succeeded in making a quality book out of the mess I left her.

Kas Dumroese  
Editor-in-Chief
If an award were given to the faculty member having the greatest variety of duties, responsibilities and titles in forestry positions at Michigan Tech, the winner undoubtedly would be Irvin Ziemer.

Irvin has been a full-time member of the Forestry Department faculty since 1977, but held positions as temporary instructor in the Forestry Technician program in 1974-5, and as assistant in the Forestry Department’s summer camp program before receiving his regular appointment.

Irvin is a Copper Country native, having lived in Atlantic Mine during his early years, then in Twin Lakes through his school and college years. He attended the Heikkinen School through eighth grade and attended Jeffers High School in Painesdale. After his graduation, he enrolled in Forestry at Michigan Tech, graduating in 1961.

Irvin then put in a two-year hitch in the Army, before beginning work as a forester for the Copper Range Company, with offices in Houghton. He continued in this work until 1972.

For the next several years, he undertook contract forestry work for the Michigan Department of Natural Resources and also was employed by the Banzhaf Company, consulting foresters.

When the Forestry Technician staff was in need of a temporary faculty member, Irvin broke into the teaching ranks for the 1974-5 academic year. About this time the Department of Forestry also needed additional help for the summer camp staff, and Irvin was called on to meet this need.

In March, 1977, Irvin received an appointment as a teaching assistant in the Forestry Department. His nine-month teaching duties included spring, summer and fall, and winter off. More recently he was appointed director of the summer camp program, and in 1981 he was designated a visiting instructor. His teaching duties now include winter quarter.

His main teaching responsibilities during the regular school year are the instruction of aerial photograph interpretation, and mapping graphics. He also has devoted much time to revision of the Forestry Camp Handbook, the basic material for organization and instruction of the Department’s summer camp program.

To assist in this work, Irvin recently purchased a micro computer which he finds valuable in compiling information to be used in the handbook. In the process he has become a dedicated computer data cruncher, if not a Pacman addict.

Along with his regular duties, Irvin has found time to assist other members of the faculty in many ways, benefiting the instructional program significantly.

Soon after beginning his teaching duties, Irvin began a Master’s degree program, and received the M.S. degree in Forestry from Michigan Tech in 1981.

Irvin was married to Priscilla Hitchens, of Trimountain, in 1966. The couple live in Painesdale. They have two boys, David, 15, and Scott, 13. Family activities, especially junior hockey, occupy much of Irvin’s time. He also enjoys hunting and fishing, and has engaged in trapping during past years.

Irvin also is active in church affairs, participating in the Luther Layman’s League.

An active member of the Society of American Foresters, Irvin serves as faculty advisor to the Michigan Tech Student Chapter, SAF. In this capacity he won national recognition at the 1982 SAF National Meeting when he received the award for having signed the most applications for membership in the Society, during the preceding year.

This Salute recognizes Irvin Ziemer for his valuable contributions in the many and varied roles he has played in the development and conduct of forestry education at Michigan Tech. Congratulations, Irvin!
Tight budgets and fiscal stringency have characterized the situation in the School of Forestry and Wood Products during the past year. Michigan's depressed economy has resulted in reduction and deferral of state payments to state-supported educational institutions, requiring severe cutbacks and program reductions throughout the system. Fortunately, Michigan Tech has fared better than most other schools and no wholesale program abandonment has been necessitated this year.

In an economy move, the Forestry Technician program, formerly operated at the Ford Forestry Center, was transferred to the Houghton campus last fall.

**Dr. David Reed** joined the Forestry Department in September, 1982, as an assistant professor. He has a background in forest biometrics and computer applications. He received his B.S. degree in forestry from the University of Arkansas--Monticello, and his M.S. and Ph.D. degrees from Virginia Polytechnic Institute.

Dr. Rolf A. Leary began a two-year appointment in the Forestry Department as an adjunct professor in March. He is engaging in instruction and research activities. Dr. Leary is a research mensurationist with the North Central Forest Experiment Station, U.S. Forest Service, St. Paul, Minn., temporarily released to Michigan Tech.

Other recent adjunct appointments include **Dr. Dean W. Einspahr**, Director of the Forest Biology Section, Institute of Paper Chemistry at Appleton, Wis., as adjunct professor, and **Robert Heyd**, Regional Entomologist with the Michigan DNR, Marquette, as adjunct assistant professor.

Michigan Tech received two grants totaling $426,000 to support field studies of the environmental impact (if any) of the Navy's ELF submarine communications system, proposed for installation in the Upper Peninsula and northern Wisconsin. **Dr. Martin Jurgensen** and **Dr. Johann Bruhn** are in charge of the two major aspects of the study.

Computer personnel of the Ford Forest continue work on the Michigan DNR Operations Inventory System. **Mark Anderson**, research forester/systems analyst, is project coordinator.

Several faculty members participated in a symposium on artificial regeneration of conifers in the Upper Great Lakes Region, co-sponsored by Michigan Tech, last October in Green Bay, Wis. They included **Glenn Mroz**, **Dr. John Kotar**, **Robert Sajdak**, **Dr. Bruhn** and **Dr. Jurgensen**.

**Carl Trettin** chaired a Cooperative Research on Forest Soils conference at Michigan Tech on March 29, which included presentations by several Department faculty members. They were **Dr. Reed**, **Prof. James Meteer**, Mr. Mroz, Dr. Kotar, **Dr. Bruhn** and **Dr. Stephen Shetron**.

Three faculty members and one graduate student presented papers at the Michigan Academy of Science Arts and Letters at Eastern Michigan University, Ypsilanti, March 25. They were **Dr. C.R. Crowther**, Dr. Reed, **James Johnson** and **Balazs Elyod**.

**Dr. Norman Sloan** presented a paper at the Pacific Science Congress at Dunedin, New Zealand, in February.

**Dr. Roswell Miller** addressed the 43rd annual meeting of the American Congress on Surveying and Mapping in Washington, D.C., in March. His paper, "Low-Volume Road Surveys," also appeared in the March 1983 issue of *Surveying and Mapping*.

Dr. Bruhn chaired a session of the 1982 Central International Forest Insect and Disease Conference at Thunder Bay, Ont., Canada, and presented a paper at the meeting, Sept. 27-29. He also received a contract from the Michigan DNR for evaluating performance of nursery mycorrhizae, and attended the annual meeting of the Michigan Forest Pest Management Cooperative in March.

**Dr. Crowther** presented a paper at the 57th annual conference of the Michigan Forestry and Park Association at East Lansing, March 9.

**Dr. Bartelli** has been appointed to the National Research Council to serve on a committee reviewing the work and accomplishments of the soil conservation agencies. He also serves as an advisor to the Mexican Soil Science Society.

**Dr. Yuan-Zong Lai**, associate professor, has resigned to accept a position in the New York School of Forestry and Environmental Science at Syracuse. He formerly was on leave of absence from MTU while engaging in research at Syracuse.
Project ELF (Extremely Low Frequency), the submarine communications system the U.S. Navy plans to build in Marquette and Dickinson counties, and the effects of its electromagnetic field on tree and plant life cycles and productivity, is being studied under a grant of $426,000 by Michigan Tech's forestry and biology departments, along with the Ford Forestry Center in Alberta.

Dr. Martin F. Jurgensen, project coordinator and a professor in MTU's School of Forestry and Wood Products, along with a study team of about twenty investigators are locating test plots in the Marquette and Dickinson counties adjacent to the proposed ELF transmission corridors to collect baseline data on the current condition of trees and plants in the area. There will be a subsequent impact study of the possible effects that the operating system may have had on the environment a few years after the ELF antenna has been turned on. The duration of the study is expected to be from eight to ten years.

Similar experiments were done previously at the operational ELF transmitting facility near Clam Lake, Wisconsin, but the results were inconclusive.

According to Jurgensen, the main problem with the Clam Lake study was its inability to determine what changes in the plant community were due to effects of the antenna, and which were the result of natural factors. In the present study, air temperature, soil moisture and temperature, rainfall, solar radiation and humidity will be closely monitored to attempt to conclude what effects these environmental factors have on the life cycles of trees and plants. This phase of the study is expected to continue until 1987, when the ELF system is scheduled to begin operating.

"Once the system is operational, we can go back into the field for phase II of the study, which will examine what environmental changes, if any, were directly caused by the ELF system." The thrust of the Michigan Tech study will be five-fold:

1. To monitor existing environmental conditions adjacent to the corridors to be used in the ELF transmission grid system;
2. To look at tree productivity—measure height, growth, diameter, mortality, and insect and disease activity both before and after the ELF system goes into operation;
3. To examine the possible effects of the ELF electromagnetic field on tree-root growth and plant litter decomposition by microorganisms;
4. To investigate budding, flowering, leafdrop, and life cycle changes in native trees and herbaceous plants; and
5. To design experiments and analyze the environmental data and plant measurements to determine their relationship to the operation of an electromagnetic field.

The primary objective of the ELF study is to determine if there are any detrimental environmental effects from the ELF transmission system, and if there are problems, to provide some suggestions on ways to correct them.

A few of the Michigan Tech Elves: Glenn Mroz, Marty Jurgensen, Pete Cattellino, Bill Drummond, Peggy Gale, and Tim Bottenfield. (Photo by Dumroese)

From ELF-man to Acidman! (Tim Bottenfield concocts an elfin potion)
Forestry Faculty and Staff

Dr. Lindo J. Bartelli
Head, Department of Forestry
B.S. Michigan State Univ.
M.S. Michigan State Univ.
Ph.D. Univ. of Illinois

James Meteer
Professor
B.S. University of Michigan
M.F. University of Michigan

Dr. C. Richard Crowther
Professor
B.S. Iowa State Univ.
M.S. Iowa State Univ.
Ph.D. Univ. of Michigan

Dr. Martin F. Jurgensen
Professor
B.S. Syracuse Univ.
M.S. Syracuse Univ.
Ph.D. North Carolina State Univ.

Dr. Rolfe A. Leary
Adjunct Professor
U.S.F.S. North Central Experiment Station
St. Paul, Minnesota

Dr. Norman F. Sloan
Professor
B.S. Michigan Tech. Univ.
M.S. Univ. of Wisconsin
Ph.D. Univ. of Wisconsin
Indrajith D. Wijayaratne  
Lecturer  
B.S. Univ. of Ceylon  
M.S. Ohio State

Dr. Margaret F. Herman  
Assistant Professor  
B.A. Colorado College  
M.S. Washington State Univ.  
Ph.D. Univ. of Montana

Gerald M. Allan  
Instructor  
B.S. Michigan Tech. Univ.  
M.S. Michigan Tech. Univ.

Dr. David D. Reed  
Assistant Professor  
B.S. Univ. of Arkansas  
M.S. Virginia Polytechnic Institute & State University  
Ph.D. Virginia Polytechnic Institute & State University

Glenn D. Mroz  
Instructor  
B.S. Michigan Tech. Univ.  
M.S. Michigan Tech. Univ.

Irvin R. Ziemer  
Visiting Instructor  
B.S. Michigan Tech. Univ.  
M.S. Michigan Tech. Univ.
Margaret Gale
Faculty Assistant
B.S. Michigan Tech. Univ.
M.S. Michigan Tech. Univ.

Mary Frantti
Administrative Aide

Dennis A. Baril
Teaching Assistant
A.A.S. Michigan Tech. Univ.

Kathleen R. Slattery
Laboratory Assistant
B.S. Michigan Tech. Univ.

Carol B. Isola
Typist

Daniel W. Miller
Faculty Assistant
B.S. Michigan Tech. Univ.
M.S. Michigan Tech. Univ.
Ford Forest Faculty and Staff

David E. Andersen
Coordinator, Logging Safety Program

Carl C. Trettin
Assistant Research Scientist

Julia S. Kucab
Assistant Research Scientist

Dr. Stephen G. Shetron
Professor
Senior Research Scientist

Mark A. Anderson
Research Forester/Systems Analyst

James A. Johnson
Research Forester

Gary S. LeMasters
Field Coordinator/Assistant Research Scientist

Forest Technology Faculty and Staff

Front row: Thomas L. Kelley, assistant professor; Sharlene Kannainen, secretary; James P. Dougovito, training specialist; Bernard W. Carr, associate professor, coordinator. Second row: Ralph G. Duffek, assistant professor; William Bertie, assistant professor.
Gene Hesterberg

When asked how I like retirement my response is that "I'm not retired, I'm retreaded!"

I've been more than busy conducting a number of interesting consulting projects, including 12,000 acres in East Texas, Quincy Mining Co. lands, Vulcan Corp. properties and a tract in northern Wisconsin.

In mid-January I started the inventory of a 45,000 acre tract here in the U.P.

This summer I'm going to catch Canada's biggest Tiger Muskie, then Hammer and I hope to thin out some of the 12-20 pound lakers from Keweenaw Bay. And if everything else goes well, by Fall I'll head West to see if the mule deer still run funny, or chase down a big Elk up in the High Country. This retirement is sure a fine way to end it all.

Vern Johnson

Several years ago, my wife, Marion, persuaded me to visit our daughter, who was studying in Paris. We enjoyed Europe so much we returned in '75. This time we went to England and Scotland, stopping to walk the 'old course' at St. Andrews. Then we flew to Amsterdam, and drove through Germany, Austria, Switzerland and Italy.

We have been to Hawaii twice, sightseeing, golfing and just plain beach combing. We visited the Volcano National Park, where Kilauwea had erupted in September.

Spring is a busy time. In February and March we ski in Colorado, after limbering up on the U.P. slopes. In late March we head south to soak up the sun and play golf.

We are usually 'at home' during the summer, and have open house for all alumni. Drop in and see us.

U.J. (Bert) Noblet

Mr. Noblet moved to Masonville, a few miles north of his home town of Gladstone, Michigan, in 1977. His wife, Gladys, had passed away a short time before.

There he owns a spacious split-level home along the shore of Little Bay de Noc, Lake Michigan, which he shares with his Labrador Retriever, Petu.

Despite his advancing age, Mr. Noblet has remained in generally good health until recently. Last January he was hospitalized for a time, and subsequently entered Pine Crest Medical Care Facility at Powers, Michigan.

He enjoys frequent visits from his son, Jack, and family who now live in Hayward, Wisconsin, and as opportunity affords, from his son Peter and family of Sault Ste. Marie, and other family members.

Helmuth M. Steinhilb

I retired from the Forestry Department on December 31, 1979. Since that time, I worked half time for the USDA Forest Service, Forest Sciences Laboratory, at Houghton, Michigan until December 31, 1982. Since then, I work for the Forest Service when they need me.

My work for the Forest Science Laboratory has been doing research in the field of time studies and cost determinations for forest operations, and the construction of green weight tables for Michigan tree species.

I have continued to be active as Secretary of the Range Lions Club, Secretary of the Adams Township School Board, President of the Board of Directors of the Paine Memorial Library, and work with the Adams Township - Village of South Range Water and Sewage Authority.

I enjoy fishing on Lake Superior for lake trout and salmon, crosscountry skiing, hiking, gardening and cutting firewood. All in all, retirement suits me!
The following students of the School of Forestry and Wood Products earned 3.50 to 4.00 grade point averages for the 1982-83 school year.

*Achieved a 4.00 grade point average.

**Summer Quarter**


**Seniors:** Timothy R. Bottenfield, Steven M. Paulson*, Karin A. Stretchko.

**Fall Quarter**

**Freshman:** Harold P. Bledsoe*, Joseph C. Domitrovich, Susan B. Hart, Carol A. Waite, Robert E. Weykamp.  

**Sophomores:** Keith S. Eldred Jr., Roy E. Lefevre, Jason S. Montgomery, John A. Mounger.  


**Freshman Technicians:** Joel S. Petroelje.

**Sophomore Technicians:** Mark A. Brouse, Christopher J. Orlando, Scott R. Saren, Ron D. Trevillian.

**Spring Quarter**

**Freshman:** Heather K. Fry, Russell E. Smith, Mary J. Sunblade.  

**Sophomores:** Kenneth R. Brummel, Dennis M. Bush, Susan B. Hart, Jason S. Montgomery.  

**Juniors:** James O. Crandall, Kenneth J. Marshall, Kevin J. Wickey*.  


**Winter Quarter**

**Freshman:** Dennis M. Bush, Mary J. Sunblade, Carol A. Waite.  

**Sophomores:** James M. Miller, Robert J. Sommer.  

**Juniors:** Rick M. Blom, James O. Crandall, Bruce K. Letwin*, Andrew T. Mulcahey, Margaret L. Pax, George M. Platz, Scott J. Torreano, Kevin J. Wickey*, Christopher D. Wiita.  


Checking out the quality hardwoods in Cincy. (Patty Heins, Gail Hoult, and Les Fuller by Therrien)
Dean’s Award Recipients

Paul Essinger and Kevin LaBumbard are this year’s recipients of the Dean’s Award. Both of these gentlemen have excelled both in the classroom and in extracurricular activities. Paul has been an active member for three years in the Forestry Club and the Society of American Foresters. He served as S.A.F.'s Program Coordinator in ’81-’82 and was Chairman this past year. He was also a member of Xi Sigma Pi, earning a 3.71 grade point average. Last summer Paul was a teaching assistant for summer camp and this summer begins his Master's work on developing a habitat type site classification system in Northern Wisconsin.

Kevin served as the Secretary-Treasurer for the Society of American Foresters and as the Fiscal Agent for Xi Sigma Pi during this past year. He was also an active member for three years in the Forestry Club. Last year, Kevin received a scholarship from the Northeastern Loggers Association. He also paired up with Paul as a summer camp teaching assistant. Kevin maintained a grade point average of 3.78 during his stay at Tech. Presently, Kevin is employed with James Vardaman's Consulting Foresters in Lufkin, Texas.

The Forester congratulates these fine young men on their accomplishments and wishes them the best of luck in their futures.

Chief Forester Annette Kikendall and Advisor Dr. Johann Bruhn present Steve Nelson with a Xi Sigma Pi National Scholarship. (Photo by Crowther)

Robert P. Hoffmann and Donna L. Hinz receive their scholarships from Mark Stelle, Executive Assistant with the Timber Producers Association of Michigan and Wisconsin. (Photo by Crowther)

Paul Essinger, left, and Kevin LaBumbard.

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Richard D. Ahnen  
_Forest Management_
Box 439  
Ramsay, MI 49959

'I82-'83 School of Forestry and Wood  
Products Graduates

Marie Andrzejczyk  
_Urban Forestry_
210804 Weller  
Warren, MI 48089
CAREER INTERESTS: Landscape design, greenhouse management.  
WORK EXPERIENCE: General laborer in landscape firm.

Michael J. Bartolo  
_Land Surveying_
714 East Hurd Rd.  
Monroe, MI 48161
CAREER INTERESTS: Become a registered land surveyor.  
WORK EXPERIENCE: Surveying technician with USFS.  
CLUBS & ACTIVITIES: ACSM Board Member, President & Treasurer of Tau Kappa Epsilon Fraternity, Student member MSRLS.

John Michael Bedford  
_Urban Forestry_
19450 Beck Rd.  
Northville, MI 48167
CAREER INTERESTS: Urban forestry and related areas, landscaping  
CLUBS & ACTIVITIES: Social Chairman and Membership Devel. Coordinator-Delta Upsilon, Song-leader-RIF  
HONORS: Dean's List

Tom Bogren  
_Land Surveying_
Whiskey Delta House  
Hurontown, MI 49931
CAREER INTERESTS: Self-employment.  
WORK EXPERIENCE: Land Surveying.  
CLUBS & ACTIVITIES: ACSM Board of Directors.

David R. Bradley  
_Land Surveying_
P.O. Box 267  
Dollar Bay, MI 49922
CAREER INTERESTS: Surveying, boundary surveying  
WORK EXPERIENCE: Teacher's Assistant, various laborer positions  
CLUBS & ACTIVITIES: Vice Chairman-ACSM  
HONORS: Gene and Margaret Hesterburg Forestry Scholarship, Copper Country Memorial Scholarship

Laura M. Dahl  
_Forest Soils_
431 Clair  
Garden City, MI 48135
CAREER INTERESTS: Soil conservation and its application to management.  
CAREER & ACTIVITIES: Forestry and Soils Clubs.  
HONORS: Xi Sigma Pi.
Roger DeKett
Forest Soils
1316 Quanicassce Rd.
Reese, MI 48757
CAREER INTERESTS: Soil conservation or soil mapping.
WORK EXPERIENCE: Dairy Farm.
CLUBS & ACTIVITIES: Forestry and Soils Clubs.

Edward J. Doyle
Forest Management
CAREER INTERESTS: Consulting forestry
WORK EXPERIENCE: Dow Gardens
CLUBS & ACTIVITIES: Assistant Forester - Forestry Club, Officer - Wildlife Society, Conclave team
SAF, broomball team

Brian Dykstra
Forest Management and Ecology
615 Cedar Lake Rd.
Stanton, MI 48888

Paul S. Essinger
Forest Management
105 W. Calverley Rd.
Houghton, MI 49931
CAREER INTERESTS: Timberland management, operations research analysis.
WORK EXPERIENCE: Teaching assistant at MTU Forestry Summer Camp,
CLUBS & ACTIVITIES: Chairman of SAF, secretary of Omicron Delta Kappa, Forestry Club.
HONORS: Xi Sigma Pi, ODK, Michigan Tech Student Foundation Scholarship, Fredrick L. Heinrich Scholarship, Dr. George B. Rubbe Memorial Scholarship.

Jonathan M. Field
Forest Management
10011 Fieldcrest
Brighton, MI 48116
CAREER INTERESTS: Forest Management in Midwestern US.
WORK EXPERIENCE: Green Ridge Tree Service Co.
CLUBS & ACTIVITIES: Inter-Varsity Christian Fellowship-YES, AWANA Youth Association.

James Kent Fundum
Wood & Fiber Utilization
K-404
Malinta, OH 43535
CAREER INTERESTS: Quality control management.
WORK EXPERIENCE: Park Ranger Ohio DNR, National YCC work crew leader.
CLUBS & ACTIVITIES: Forest Products Research Society, Student Advisory Committee, Flying Club, Church organist.
HONORS: Phi Eta Sigma, Book Academic Scholarship, Robbin's Inc. Wood Science Scholarship.

David P. Grobbel
Urban Forestry
11059 Rosselo
Warren, MI 48093
CAREER INTERESTS: Landscape planting and design, municipal or nursery work.
CLUBS & ACTIVITIES: MDA organizer, Big Brother program.

Roger Guernsey
Urban Forestry
12245 Lincoln Lake Rd.
Greenville, MI 48838
CAREER INTERESTS: Urban environment management.
Daivid R. Harris
Forest Soils
800 E. Curtis Rd.
East Tawas, MI 48730
CAREER INTERESTS: Conservation law, parks and recreation, soils and forestry.
WORK EXPERIENCE: State Park Ranger, Volunteer Conservation Officer.
HONORS: Xi Sigma Pi, Michigan Jr. College Scholarship, N.S. Mackie Scholarship, Kirtland Community College Board of Trustees Scholarship.

Laura Haydon
Urban Forestry
29002 Alvin Court
Garden City, MI 48135
CAREER INTERESTS: Landscape, municipal, or nursery work.
CLUBS & ACTIVITIES: SAF and Forestry Club member.

Donna L. Hinz
Forest Soils
Box 86
Shiocton, WI 54170
CAREER INTERESTS: Soil scientist or forestry research.
WORK EXPERIENCE: Technician at Bozeman Forestry Science Lab.
CLUBS & ACTIVITIES: Soils Club and judging team.
HONORS: Dean's List.

Richard Hupfer
Land Surveying
Whiskey Delta House
Houghton, MI 49931
CAREER INTERESTS: Land surveying
WORK EXPERIENCE: Surveying technician
CLUBS & ACTIVITIES: ACSM

Jamie Hartz
Urban Forestry
3149 Skander Drive
Flint, MI 48504
CAREER INTERESTS: Landscape municipal, or nursery work.
CLUBS & ACTIVITIES: SAF member, IM sports.

Kathlyn T. Hepp
Urban Forestry
3140 Seymour Lake Rd.
Oxford, MI 48051
CAREER INTERESTS: Landscape planning and design, soil testing and analysis.
WORK EXPERIENCE: YCC and camp counselor.
CLUBS & ACTIVITIES: SAF member, Portage Lake Church Choir.

Gail M. Houl
Recreation Resource Management
551 Lakeside Dr.
Pontiac, MI 48054
CAREER INTERESTS: Management of forest & parks resources for recreation
WORK EXPERIENCE: Oakland County Parks & recreation Commission
CLUBS & ACTIVITIES: SAF

Matthew A. Imbrock
Wood & Fiber Utilization
2107-A Woodmar Dr.
Houghton, MI 49931
CAREER INTERESTS: Any aspect of wood processing and utilization
WORK EXPERIENCE: Institute of Wood Research, Portable Sawmill Contractor, Koppers Co.
CLUBS & ACTIVITIES: President, Sec-Treas-Forest Products Research Society
Karen L. Keeley  
*Recreation Resource Management*  
1903E Woodmar  
Houghton, MI 49931  
CAREER INTERESTS: Park employment in the public sector  
CLUBS & ACTIVITIES: Dramatics, singing, Winter Carnival queen candidate, music leader, Baptist Student Union, ice hockey  

Annette Kikendall  
*Urban Forestry*  
2111 A Woodmar Dr.  
Houghton, MI 49931  
CAREER INTERESTS: Urban forestry management or crew status  
WORK EXPERIENCE: Camp-ground assistant, YCC  
CLUBS & ACTIVITIES: President, Xi Sigma Pi, Forestry Student Advisory Committee, IM volleyball  
HONORS: Xi Sigma Pi, ODK, Michigan Competitive Scholarship  

Joel F. Kohtz  
*Forest Management*  
7645 Ternes  
Dearborn, MI 48126  
CAREER INTERESTS: Forest management, forest inventory and growth  
CLUBS & ACTIVITIES: Forestry Club  
HONORS: Dean's List  

Kevin J. LaBumbard  
*Industrial Forestry & Management*  
168 Douglas Houghton Hall  
Houghton, MI 49931  
CAREER INTERESTS: Industrial Corp. or Consulting Firm  
WORK EXPERIENCE: Teacher's assistant for MTU's Summer Camp, DNR heavy equipment operator  
CLUBS & ACTIVITIES: Secretary & Treasurer-SAF, Fiscal Agent-Xi Sigma Pi, Forestry Club  
HONORS: Xi Sigma Pi, Northwestern Logger's Association Essay Scholarship  

Sharon LaForest  
*Urban Forestry*  
4304 Woodcock Way  
Milford, MI 48042  
CAREER INTERESTS: Urban forestry, arboretum, nursery, wood science  
WORK EXPERIENCE: Institute of Wood Research, YCC  
CLUBS & ACTIVITIES: SAF, Forestry Clubs  
HONORS: Michigan Competitive Scholarship  

Patricia Ann Lancendorfer  
*Land Surveying*  
859 Wheelock St.  
Detroit, MI 48209  
CAREER INTERESTS: Surveyor's aid  
WORK EXPERIENCE: Teacher's assistant for Introductory Survey & Survey Field Procedure  
CLUBS & ACTIVITIES: Secretary-ACSM  
HONORS: Dean's List  

Robert G. Lueckel  
*Forestry*  
72 Crossroads Lane  
Glastonbury, CN 06033  
CAREER INTERESTS: Forest management, forest finance  
WORK EXPERIENCE: Financial analyst, forestry lab technician  
CLUBS & ACTIVITIES: SAF, Houghton Audubon Club  

Tina M. MacIntyre  
*Forest Entomology*  
Box 4, Franklin St.  
Houghton, MI 49931  
CAREER INTERESTS: Silviculture & management  
WORK EXPERIENCE: Interpreter staff at Wolftrap Farm Park, gardener/landscaper
Mary Malta  
Forest Soils  
18944 Woodcrest  
Harper Woods, MI 48225  
CAREER INTERESTS: Analyzing soils, forest and land management  
WORK EXPERIENCE: Student assistant at MTU's Ford Forestry Center in soil's lab  
CLUBS & ACTIVITIES: Secretary-SCSA, MTU soil judging team, MTU University Theatre  
HONORS: Xi Sigma Pi

Lori McCauley  
Recreation Resource Management  
30648 Dover  
Warren, MI 48093  
CAREER INTERESTS: Recreational management  
CLUBS & ACTIVITIES: Forestry Club, Forester Staff, IM Sports

Stephen J. McNulty  
Forest Soils  
U.S. Marine Corps  
CAREER INTERESTS: Military service, forest soils work  
CLUBS & ACTIVITIES: Soil Conservation Society, Intramural sports

Kevin McCarthy  
Forest Soils  
3507 Syracuse  
Dearborn, MI 48124  
CAREER INTERESTS: Project consultation, site evaluation, research  
CLUBS & ACTIVITIES: Vice President-Phi Eta Sigma, church retreat committee, soils club, biking club  
HONORS: Xi Sigma Pi, Phi Eta Sigma, Harold Robbe Scholarship

Michael McDuffie  
Forest Management  
906 Summit St.  
Hancock, MI 49930  
CAREER INTERESTS: Consulting forestry, timber producing  
WORK EXPERIENCE: cutting cedar post & rafters, wood products mill

Cary A. Middeldorf  
Urban Forestry  
218 S. Leland  
Battle Creek, MI 49015  
CAREER INTERESTS: City forester, landscaping  
WORK EXPERIENCE: Landscaping, nursery  
CLUBS & ACTIVITIES: Forestry Club, Ducks & Trout Unlimited

Thomas A. Morgan  
Urban Forestry  
15061 Whitcomb  
Detroit, MI  
CAREER INTERESTS: Urban forestry  
CLUBS & ACTIVITIES: Varsity wrestling

Todd M. Neiss  
Forest Soils  
1569 Indian Creek Dr.  
Temperance, MI 48182  
CAREER INTERESTS: State of Michigan DNR, soil mapping  
WORK EXPERIENCE: Isle Royale Park Service  
CLUBS & ACTIVITIES: Soils Club, IM Hockey
Stephen R. Nelson  
*Forest Management & Soils*  
Rt. 3 Box 400  
Rapid River, MI 49878  

**CAREER INTERESTS:** Forest regeneration and management  
**WORK EXPERIENCE:** Logger, forest intern with Mead Corp., work study, drafting  
**CLUBS & ACTIVITIES:** Chief & Assistant Forster-Forestry Club, Associate Forster-Xi Sigma Pi, MTU Ski Club, SAF  
**HONORS:** Xi Sigma Pi

Donald Ora Nielson  
*Industrial Forestry*  
511 Tezcuco  
Hancock, MI 49930  

**CAREER INTERESTS:** Consulting forestry or management of forests land on an industrial level

Douglas Ottosen  
*Forest Management*  
1125 Liberty  
Fremont, OH 43420  

**CAREER INTERESTS:** Management  
**CLUBS & ACTIVITIES:** IM Sports

Sarah Ann Rebitzke  
*Forest Management*  
8000 Farrant  
Union Lake, MI 48085  

**CAREER INTERESTS:** Long term forest management  
**WORK EXPERIENCE:** YCC, landscaping  
**CLUBS & ACTIVITIES:** SAF & Forestry Clubs  
**HONORS:** Michigan Competitive Scholarship

Gregg Reynolds  
*Forest Hydrology*  
701 Cedar Bluff Apt. 5  
Houghton, MI 49931  

**CAREER INTERESTS:** Forest hydrology  
**WORK EXPERIENCE:** MTU Peat resources project, landscaping

Cynthia K. Richardson  
*Forest Rec. Land Management*  
640 S. Lincoln Lane  
Arlington Heights, IL 60005  

**CAREER INTERESTS:** State or National Park management position  
**WORK EXPERIENCE:** Naturalist Aid  
**CLUBS & ACTIVITIES:** President-Delta Zeta, Resident Assistant, IFC, IM Sports  
**HONORS:** Xi Sigma Pi

David J. St. Arnaud  
*Land Surveying and Civil Engineering Technician*  
930 Oak St.  
Negaunee, MI 49866  

**CAREER INTERESTS:** Surveying  
**WORK EXPERIENCE:** Surveying Technician USFS  
**CLUBS & ACTIVITIES:** Treasurer-ACSM, President MTU Tennis Club, IM Sports  
**HONORS:** Omicron Delta Kappa, MTU Board of Control and State of Mich. Scholarships, Solutarian of Negaunee High School

Theresa R. Sysol  
*Forest Management*  
5400 Van Dyke  
Almont, MI 48003  

**CAREER INTERESTS:** All areas of forestry  
**WORK EXPERIENCE:** YCC  
**CLUBS & ACTIVITIES:** Secretary-Forestry Club, SAF, Pi Theta Chi  
**HONORS:** Xi Sigma Pi
Kathleen M. Teahan  
Forest Recreation Resource Management  
15445 Everly Dr.  
Roseville, MI 48066  
CAREER INTERESTS: Any type of forestry, especially recreation  
CLUBS & ACTIVITIES: Secretary-Forestry Club, Caption editor-Forester, SAF

Alice L. Therrien  
Forest Management & Recreation Resource Management  
485 RFD 3 Route 184  
North Steilington, CT 06359  
CAREER INTERESTS: Timberland management, parks and recreation area management  
CLUBS & ACTIVITIES: Treasurer-Forestry Club, Business Manager-Forester, Ranger-XI Sigma Pi, SAF  
HONORS: XI Sigma Pi

Carole Tompkins  
Urban Forestry  
12690 Gates Rd.  
Cement City, MI 49233  
WORK EXPERIENCE: Forestry Dept., City of Jackson  
CLUBS & ACTIVITIES: Forestry Club

Jan Van Tatenhove  
Forest Management  
934 Oakdale Court  
Holland, MI 49423  
CAREER INTERESTS: Land use and conservation, resource management  
CLUBS & ACTIVITIES: SAF, Forestry Club, Fencing Club

Dave Vyain  
Forest Soils  
RR 5, Box 35  
Eaton Ave.  
Muncie, IN 47302  
CAREER INTERESTS: Forestry, soil science, land surveying  
WORK EXPERIENCE: US Marine Corps, construction equipment operator US Forest Service  
CLUBS & ACTIVITIES: Forestry Club

Yvonne M. Whitman  
Urban Forestry  
P.O. Box 67  
L'Anse, MI 49946  
CAREER INTERESTS: Urban landscaping nursery work

Richard D. Wilcox  
Land Surveying  
8151 East 12 Rd.  
Manton, MI 49663  
CAREER INTERESTS: Nursery, landscape design, city forestry

Lauri Winquist  
Urban Forestry  
14547 Fairway  
Livonia, MI 48154  
CAREER INTERESTS: Nursery, landscape design, city forestry  
CLUBS & ACTIVITIES: Treasurer-Forestry Club, Alumni Editor-Forester, SAF
Bryon L. Wren
Industrial Forestry
7533 Horizon Hills Dr.
Springboro, OH 45066
WORK EXPERIENCE: Pulp cuts, tree planting
CLUBS & ACTIVITIES: Treasurer & Business Committee Chairman-SAF, Otter River Camp Chairman-Forestry Club

Graduates not pictured:
Victoria A. Barnum
Melissa A. Boos
Donald T. Brown
Hazel Drury
Ivan L. Eastin
Jeffrey S. Galbeaith
Phillip G. Hoffman
Silvia R. Hogsett
Ronald K. Jacobson
Harvey H. Johnston
Martin L. Maupin
Daniel C. McConnell
Gary L. Mielke
Bruce E. Ogonowski
Tamara L. Sanders
Mark F. Smoter
Karin A. Stretchko
Willard G. Zbaeren

Masters Graduates

Robert M. Bayer
Forest Management

Balazs I. Elody
Wildlife Management

Masters graduates not pictured:
Gail M. Simonds
Forest Technology
Associate Degree Graduates

Phil LaBeau
Forest Technology
Box 77B US 41
Houghton, MI 49931
CAREER INTERESTS: Cruising, marking, fire

Charley Macintosh
Forest Technology
Rt. #1 Box 279
Lake Linden, MI 49945
CAREER INTEREST: Cruising, boundary control, timber management, fire fighting
WORK EXPERIENCE: Cutting pulp

Chris Orlando
Forest Technology
6478 Flushing Rd.
Flushing, MI 48433
CAREER INTERESTS: Timber cruising, type mapping, fire protection
WORK EXPERIENCE: Controlled burn, forest fire fighting, tree planting

Cheryl Jamieson
Forest Technology
19476 Greydale
Detroit, MI 48219
CAREER INTERESTS: Cruising, soils
WORK EXPERIENCE: Fire fighting-DNR, custodian, waitress
CLUBS & ACTIVITIES: SAF and Forestry Clubs, Varsity Volleyball

Brent A. Leonard
Forest Technology
201 E. Douglas
Houghton, MI 49931
CAREER INTERESTS: Fire fighting, wildlife, cruising

Andrew S. McNichols
Forest Technology
5828 Crain St.
Morton Grove, IL 60053
CAREER INTERESTS: Cruising, marking timber, fire fighting, wildlife work
CLUBS & ACTIVITIES: Forestry Club, conclave team, IM Sports

Thomas B. Palmer
Forest Technology
809 W. Calverley
Houghton, MI 49931
CAREER INTERESTS: Cruising, recreational development, wildlife
WORK EXPERIENCE: Fire fighting
CLUBS & ACTIVITIES: IM Hockey
Jay Suanders  
Forest Technology  
1000 Calumet Ave.  
Lake Linden, MI 49945  
CAREER INTERESTS: Forestry or wildlife

Kurt Van Schoick  
Forest Technology  
3031 W. Kimmel  
Jackson, MI 49201  
CAREER INTERESTS: Cruising, boundary location and management  
CLUBS & ACTIVITIES: President- Alberta Dorm Assoc., Troop Commander-Culver Military Academy, Forestry Club

Ron Trevillian  
Forest Technology  
650 Longford  
Rochester, MI 48063  
CAREER INTERESTS: Timber cruising, fire protection, sayer  
WORK EXPERIENCE: USFS tree planting, controlled burn

Amy Weber  
Forest Technology  
2895 W. Weidman  
Mt. Pleasant, MI 48858  
CAREER INTERESTS: Timber cruising, TSI  
CLUBS & ACTIVITIES: President-Forestry Club

Graduates not pictured:  
Mark Brouse and Tom Bechia
John R. Hornick

John was born and raised in Houghton, graduating from Houghton High School in 1942. He got his first taste of Forestry that summer as a smoke chaser with Region 1 of the Forest Service in Montana. In September of 1942, he enrolled in Mechanical Engineering at Michigan Tech. In December, he enlisted in the Naval Air Corp and was called to active duty in May. "The only noteworthy thing about my three year Navy career," Hornick states, "is that I picked up my nickname of 'Zeke.' That nickname has stayed with me throughout my career." Returning to the Michigan Tech Campus in 1946, Zeke enrolled in Forestry and graduated with a Bachelor of Forestry in 1950.

Zeke's first stop after graduating was the Wisconsin Conservation Department in Tomahawk, Wisconsin, as a member of the Timber Inventory crew. In October of 1950, he married Marilyn Anderson of Hancock, a graduate of Michigan Tech's first Medical Technology class. The following July, the couple moved to Marquette, Michigan, where Zeke had accepted a wood procurement job with the Cliffs-Dow Chemical Company. Zeke left Cliffs-Dow to return to Houghton where, in 1956, he took over the Silviculture and Range Management courses at Michigan Tech while the Forestry Department sought a replacement for Eric Bourdo, who had moved to the Ford Forestry Center.

At the end of the school year, he joined the Forest Service as Assistant Ranger on the Eagle River District in Wisconsin. A year later he was promoted to a timber management position on the Ottawa National Forest in Ironwood. In 1959 Zeke became the Regional check scaler for Region 9 and for the next four years he trained Forest Service people in cruising and scaling procedures and standards. "Every new Forester hired during this period had to attend my training courses," Zeke said, "and some had never seen a scale stick before. The training I received from Hammer Steinshilb was a huge help on this job." During those years, Zeke usually returned to the Michigan Tech Summer Camp to present some of his training programs. A major highlight of the scaling days was supervising the cruise of the Sylvania Tract near Watersmeet, Michigan, now part of the Ottawa National Forest.

In 1963 the Timber Management job on the Chequamegon National Forest called the family back to Wisconsin. Following this, he became Director of the Job Corp Camp at Clam Lake, Wisconsin.

A major change in Zeke's career occurred in 1968 when he moved to Upper Darby, Pennsylvania to take charge of the Forest Products Utilization Program in State and Private Forestry. This program works through the State Forestry organizations to provide technical assistance to industry and others in a program designed to extend the resources through better utilization. The Forest Products Utilization Program sought to implement new technology developed at Forest research stations.

"The Saw Mill Improvement Program (SIP) was probably our outstanding program," says Zeke. Crews of Forest Service and State specialist would measure production efficiency in one or two day studies at selected mills.

Ronald D. Lewis

Ronald D. Lewis began his USFS career on the Butte Falls Ranger District of the Rogue River National Forest in Butte Falls, Oregon in July 1962. In January 1963, he entered the Army, serving two years of active service as a Topographic Surveyor in the Corp. of Engineers with a mapping unit in Korea.

Ron returned to the Forest Service at Butte Falls in January 1965 as small sales Forester in Timber Management.

In 1967, he transferred to the Prospect Ranger District, Rogue River National Forest at Prospect, Oregon, as large Sales Forester and in 1968 he moved again to the Blue River Ranger District on the Willamette National Forest in Blue River, Oregon, where Ron served as Reforestation Forester, District Silviculturist, and District Timber Management Assistant respectively. In 1973, he transferred again to the Deschutes National Forest, Fort Rock Ranger district in Bend, Oregon as the timber management Assistant responsible for reforestation, silviculture, timber sales, and contract administration activities on the 600,000 acre district.

With this broad background and experience in National Forest timber resource management Ron was selected to serve a three year assignment in 1978 with the U.S. Department of Agriculture's Office of Inspector General. He worked out of the
USDA-OIG’s Western Regional Office in San Francisco, California, where he traveled from Kodiac, Alaska to Washington, D.C., and from Santa Barbara, California to Houghton, Michigan as Auditor-in-charge of several major Audits for Forest Service Programs and activities.

In March 1981, Ron returned to the Forest Service in his present position as Assistant Staff Officer for timber sales on the Gifford Pinchot National Forest in Vancouver, Washington.

Ron’s principal duties on this Forest are planning and coordinating the Forest’s Timber Sales program on five Ranger Districts; totaling about 487 million board feet of annual sales and the Administration of nearly 2 billion board feet of timber under contract.

“The main thrust of our efforts in the two years that I have been here has been the salvaging of the timber killed or damaged by the May 18, 1980 eruption of Mt. St. Helens,” says Ron. “Living and working around a live volcano has not been easy, sometimes extremely frustrating, but very interesting and always challenging.”

“The frustrations come primarily from politicians and preservationists prior to the establishment of the Mount St. Helens National Volcanic Monument by Congress last August, occasionnally from the mountain itself, and from the extremely depressed lumber markets. All contributed to the delays and challenges of the salvage efforts. However, through the massive efforts of many dedicated people, we have managed to sell 47 separate salvage sales to 19 different companies totalling about 525 million board feet. About 175 million BF have been logged to date, the majority of the remaining salvage volume under contract must be logged this summer or it will be deteriorated beyond commercial value. We are looking forward to another extremely busy summer.”

There is also about another 350 million board feet of salvageable timber located within the National Volcanic Monument boundaries established by Congress which by law will not be logged.

“Being directly involved in one of the most extensive salvage operations in a concentrated area ever undertaken by the Forest Service has been extremely challenging and enjoyable,” says Ron, “and I feel very fortunate to have been able to take part in it.”

Shelley Mitchell

Shelley Mitchell was born in Detroit, Michigan and graduated from Northville High School in February 1974. In March of 1974 she began studies in Forestry at Michigan Tech. Shelley remembers arriving by plane in the midst of a snowstorm, then traveling from the airport to campus through snowplowed walls 20 feet high. “What a shock! Surely this wasn’t any way to start a “spring” term at college. After four years,” she says, “I came to like the snow and enjoy many winter sports.”

In February of 1978, Shelley graduated in Urban Forestry and accepted a position with Dow Gardens in Midland, Michigan. After working on the grounds for a few months she was offered the position of Educational Coordinator. Dow had just built a Visitor’s Center and wanted Shelley to run that and start developing educational programs to be offered by the Gardens.

“This was an exciting opportunity for me,” says Shelley. “The chance for me to develop programs/classes in horticulture, forestry and environmental education and work closely with the public would be a challenge. On the other hand, this job seemed far from traditional forestry.”

Shelley’s job duties included supervision of the Visitor’s Center, giving tours, preparation of audio-visual presentations and displays, budgeting for areas of responsibility, training of college interns, direction of the Summer Camp, writing of publications, and working with community agencies and the media.

“I developed and taught along with other staff members classes for the Gardens.” The staff included horticulturists, two biologists (plant and aquatic), a forester, and an entomologist. “We worked with adult groups and the school systems. I also coordinated a Horticultural Therapy outreach program in the Midland area.” Other activities included the design, propagation, and care of the Herb Garden, grounds maintenance, and greenhouse duties.

While working at Dow Gardens, Shelley obtained a teaching certificate in Science from Central Michigan University.

In January of 1983, she relocated to Syracuse, New York, where she is continuing a career in Science and Environmental Education.

“Looking back on my years at Tech, I remember the encouragement and concern shown by instructors like Bob Sajdak, “Hammer” Steinhib, Chuck Hein, and especially Gene Hesterberg. They set a fine example for me while instilling a sense of work ethic and professionalism.”
Department Tidbits

Associate Professor Bo-Qun Lin was a guest of the Forestry Department this past year. Prof. Lin came to Tech via the People's Republic of China where she is an Associate Professor and Chairman of Teaching and Research Group in Forest Soils, Northeastern Forestry College, China. She also is a member of the Board of Directors of the Soil Science Society of China and chairs the Committee on Forest Soils. Prof. Lin is a member of the Chinese Society of Forest Science Committee on Forest Soils, a technical advisor to the Chinese Bureau of Soil Classification, and Director of the Soil Science Society of Heilongjiang Province, China. Professor Lin provided a series of seminars during the winter quarter on the soils of China.

Thomas B. Borden, President of the Society of American Foresters, recognizes Irv Ziemer for his outstanding recruitment efforts during 1981. This award was given to Irv at the National SAF Convention in Cincinnati for his recruitment of 52 new members. (Photo courtesy of the Journal of Forestry)

Alumni News

Ralph L. Chase--'66--Ralph is presently a Certified Public Accountant and plans to open his own office. He has been married 17 years and has two daughters. He still does some consulting forestry work from his home in Newark, Vermont.

Lloyd Godell--'68--Lloyd is employed with the fastest growing pulp and paper industry in the United States. He is the wood procurement superintendent for James River Corporations' Green pulp and paper mill.

Glenn E. Lamberg--'71--Glenn works as a U.S.D.A. District Conservationist with the Soil Conservation Service in Fremont, Michigan.

Scott Gladstone--'75--Presently, Scott is the senior engineering aide for the Delaware County Highway Department in Delhi, New York. He is also the proprietor of Scott's Gun Shop in Downsville, New York.

Barbara A. Bonefeld--'79--Barbara received her Master's from Michigan State University in the spring of 1981 and is currently employed on the Winema National Forest, Chemult, Oregon, dealing with silviculture.

Lynn Osika--'80--Lynn is currently a graduate student at the University of Wyoming at Laramie. She received her second Bachelor's of Science in Range Management there in May 1982. She plans to enter the Sisters of Charity of Leavenworth, Kansas, Religious Community in the fall of 1983.

David Kober--'82--Dave is presently working for the Hardin County, Michigan, Engineer's Office.
Heading home after a hard day. (Diane Clampitt and Doug Gullickson by Dumroese)

Modern transportation at summer camp. (Photo by Dumroese)

Pre-final bash at the B & B Homestead. (Photo by Dumroese)
outdoor activities, the sports events were moved indoors into the dormitory halls. Some of the best frisbee and pele' championship soccer tournaments were held here and included virtually all of the residents if they dared leave their rooms. It was a great way to break the monotony of studying and there were never any casualties except for one instance when the building fire alarm was accidentally set off.

Towards the end of our five week session, we commemorated all of the good times with a B.Y.O.B. (bring your own beverage) bonfire at the B & B Homestead, the local secluded campsite of two summer camp participants. All of the students showed up to celebrate the festive occasion, as was evident the next morning when the majority of the class drifted off during the final morning lecture.

The five weeks of forestry summer camp had practically flown by. We had all acquired a vast amount of forestry knowledge and even a few new friends. When it was over I could truthfully say it was the best five weeks of classes I had ever had.

Section Two
By Robert Ziegler

Summer Camp 1982 of the second session was both enjoyable and unforgettable. Although we had to work at it to make the classroom hours somewhat enjoyable, we could hardly help but to enjoy ourselves after classes. A major factor in making the classroom hours less unbearable were the instructors. Yes, the instructors. What with Irv's powerful control over falling and sagging cardboard visual aids (namely his pointer stick), and Denny & Ralph's "private" jokes, and Tom's unmentionable language (It's good to know that there was at least one person who did not cuss at anyone or anything out loud, during the entire summer camp), we were bound to laugh. Yes, the teacher's assistants did include their two bits, also. As a hint to others, if you ever misplace anything (water jug, book bag, etc.), don't let the TA's find out because the next time you see that particular article, it most likely will be wearing florescent flagging.

As stated before, it was very difficult for us to not enjoy ourselves after classes. Starting with a game of softball and then progressing to a comfortable swim in the Sturgeon River, after which we returned for a shower and some gourmet style, all you can eat, chow! Although our summer camp is in Alberta and 13 miles away from the nearest town, we still had all the luxuries. Why, we had softball tournaments; frisbee contests; high dive competitions (Dave came in first place with a height of the top of a tall white Spruce on top of a 35 foot cliff); foozball and pool championships; concerts in the TV room (The TV was broken); electricity; and most important, quality food. In case anyone is wondering, studying was occasionally referred to, but we all have our priorities. While some of us were swimming the river, others were fishing in many of the nearby lakes. And yet, after a strenuous day of summer camp activities, we still had the strength to play the Camp Baraga residents in a game of softball. Eventhough we gave it the old college try, we won't mention any of the scores. While the men were battling the boys of Camp Baraga, the women were fighting one of their own battles, BUGS! Most of the little pests would stay away with a little musk oil, except for the little sand flies. However, we did find something or rather someone that attracted most of them away from the rest of us; our repellent (or attractent) was someone with shoulder length red hair. Oh, by the way Kathy, everyone appreciates your participation at the games.

If beauty is your hobby, then the area of Alberta is the place. Beautiful sunsets on Big Lake's clear water is a breathtaking sight. And, I think the Northern lights can speak for themselves, at least for those of you who have witnessed their beauty.

No matter what you are looking to get out of summer camp, help yourself and others by making it enjoyable. It is easier to learn and enjoy yourself than it is to learn and be miserable.

Soccer in the dorm, Pele style! (Lee Osterland, John Carpenter, Charlie Becker, Rich Ahnen, and Doug Gullekson by Dumroese)
Anything to get away from the pesky blackflies! (John Zwier by Essinger)

Cooling off at Big Lake after the final day of summer school. (Photo by Essinger)
Testing A Mechanical Topwood Harvester

Nels S. Christopherson

In searching for ways to increase utilization of our forest lands several approaches are necessary. One is to more efficiently use the forest products that are presently being harvested. An example of this is improving wood construction techniques so that stronger and safer buildings can be built using less and possibly smaller lumber. Another approach is to increase the use of modern timber management concepts. An example of this is fully mechanized thinning with recovery. A third method of increasing utilization is to harvest or recover wood fiber that presently is being left behind as residue. A prime candidate for this is hardwood sawlog tops and limbs. With today's increased demand for forest products combined with a declining land base, there is an overwhelming incentive to utilize this residue whether viewed from an economic basis or simply from the needless waste of a natural resource!

A typical Lake States' selective hardwood sawlog operation leaves behind the tops and limbs as residue. This topwood varies between 40 and 50 percent of the weight of the tree above the stump—and can account for 10 to 20 green tons per acre of wasted wood fiber. A typical hardwood top from a 20 inch dbh tree weighs approximately 2000 pounds. In the eastern United States it has been estimated that 50 million dry tons of this hardwood top and limb residue are left behind on harvested areas each year. Conservatively, if only one-half of this fiber could be recovered for energy, it would be equivalent to 25 million barrels of oil. Alternately, the top and limbs could be used as raw material for structural flakeboard or composite wood products.

Approaches To Topwood Recovery

Many approaches to recover hardwood sawlog tops and limbs are possible with current technology. A very simple scheme is to skid the tops to roadside with the limbs intact. A major disadvantage of this method is the damage done to the residual stand by the large protruding branches. Also, the limbs must still be removed manually to facilitate chipping or for any further processing.

Whole tree logging with tops intact is another possibility, but again the damage to remaining trees is a drawback, in addition to limb removal. With carefully laid out skid paths and directional felling this method may prove feasible and definitely warrants further research.

What is common these days is a partial recovery of topwood for residential firewood. This is accomplished by manually chainsawing to remove the limbs and subsequent transport to roadside. This method is undesirable due to the extreme safety hazards encountered when working around the large tops and is also labor intensive and low in production.

Personnel of the Forest Science Laboratory, USDA, Forest Service, in Houghton, Michigan have conducted preliminary research on a unique approach to topwood recovery. It consists of compacting the large mushrooming tops with a mechanical device by severing the large limbs and aligning them with the butt of the top, and then skidding the compacted bunch out to a landing for further processing.

As a result of mutual interests in the recovery of hardwood tops and limbs, the Tennessee Valley Authority (TVA) and the Forest Service agreed to cooperate in a major research effort to investigate mechanized topwood harvesting. TVA provided the Forest Service with a tracked carrier vehicle and suitable diesel engine, and the Forest Service adapted and modified these components into a unique device called a "topwood harvester." To evaluate this machine, a cooperative field testing and demonstration program has been conducted by TVA and the Forest Service.

Description Of The Topwood Harvester

The key components of the topwood harvester are a unique cutter head/grapple attached to a telescoping tip knuckle boom and an inverted bunk grapple. The cutter head/grapple with its "wrist-like" agility is able to process the tops by removing limbs and then loading them directly into the inverted bunk for transporting.

The track system uses two rubber-belted, metal-cleated, driving tracks suspended over pneumatic tires. These two tracks, each 40 inches wide, result in the vehicle having a ground pressure rating of about 2 psi. The overall dimensions of the topwood harvester are: length, 20 feet; width, 9 feet; and gross vehicle weight, 23,000 pounds.

A 110-horsepower three-cylinder diesel engine supplies motive power to the tracks through a power shift transmission with three speeds in both forward and reverse. The diesel engine also drives two hydraulic pumps of 10 and 55 gpm capacity at 2500 psi. The smaller pump supplies power to the skid steering system and also provides pilot pressure for two banks of proportional control valves which regulate boom movement, cutter swing and rotation, etc. The large pump in turn supplies the actual operating flow for the various cylinders and hydraulic motors.

Mounted directly behind the cab is a knuckle boom loader with a 5-foot telescoping tip that permits a maximum horizontal reach of 29 feet and can swing from the rearward position 200 degrees in either direction. Attached to the tip of the loader is a unique cutter head/grapple that can rotate continuously and tip up to 90 degrees relative to the final boom axis. The grapple can securely hold material up to 22 inches in diameter, and the auger cutter can
cut limbs up to 11 inches in diameter. While the grapple holds a limb, the cutting device, a cantilevered rotary auger, sweeps through a 120-degree arc while rotating at 200 rpm to cleanly and efficiently sever limbs from the main stem. After the limbs are severed, the highly maneuverable cutter head/grapple loads them directly into the inverted clam bunk. After a load is built up, the compacted tops are skidded to a central landing for further processing, most likely chipping.

Other features include a weather proof cab containing a swivel chair for the single operator. Mounted on and rotating with the chair are all the necessary controls to operate the knuckle boom, cutter head/grapple, etc. The chair controls include two joysticks, foot pedals, and a bank of switches to operate various solenoid valves. In all, 14 separate functions are operated by controls mounted on the chair.

Field Testing

The study was carried out at TVA's Land Between the Lakes in southwestern Kentucky and northwestern Tennessee. The area is approximately 40 miles long (north to south) and 10 miles wide (east to west), and is bounded on the east by Lake Barkley (Cumberland River) and on the west by Kentucky Lake (Tennessee River). Included in this area is approximately 155,000 acres of hardwood forest which has been under continuous management since 1964.

The 10-acre plot used for the study has slopes in the 5 to 12 percent class and is managed for selective hardwood sawlog cuttings on approximately a twenty year schedule. The species harvested consisted mostly of oaks (a mixture of black, scarlet, white, chestnut and post) which made up 88 percent of the material marked for cutting with the remaining 12 percent consisting of yellow poplar (6 percent), hickory (3 percent), and miscellaneous hard and soft hardwoods (3 percent).

Prior to the topwood harvesting, all tops on the study site were measured for butt diameter, crown width and length and each top numbered. A determination was made that the sawlog harvest had taken place approximately two years ago which eliminated the need for a pre-harvest damage assessment since any fresh damage was discernable from that due to the sawlog harvest. Standard time and motion techniques were used to study details of the topwood harvest operation. A cycle consisted of the machine traveling empty from a landing to an area containing tops, processing and loading them, and then returning to the landing where each top plus its limbs were weighed. Details recorded included time and distance for various types of travel (empty, between tops, loaded), time for auger cutting (if required) and diameter of any limbs that were cut.

Results

From the 150 tops that were harvested, a total of 67 dry tons of wood fiber were recovered. This was accomplished in 43 "cycles" with an average of 3.5 tops being recovered during each cycle. Since an average top weighed nearly 1000 pounds, each cycle or load recovered almost two dry tons of wood fiber with a production rate of 3.6 dry tons/hour. The damage to existing trees and soil was minimal. These results indicate the potential of the mechanized approach to topwood recovery. Further field testing is planned in the Lake States area next summer.

Clearly, we have a mandate and opportunity to eliminate the needless waste of wood fiber after commercial sawlog harvesting. The mechanized approach and testing program just described indicate the potential of just one of several feasible methods of topwood recovery. Forest Service scientists will continue to investigate other promising approaches to find the best one for recovering hardwood tops and limbs.
FR 216 FIELD NOTES

June 11 Log Scaling and Grading - FRIDAY

Definitions:

COMPASS - device that locates elderberry thickets, slash piles, muddy logging roads and cedar swamps.

MUSKOL - liquid chemical which dissolves plastic, paint and some metals, and makes you question the durability of your skin.

DORM - indoor area designated for soccer matches & frisbee games when it’s dark or raining outside.

RELASKOP - small, very expensive metal box with a peep hole and a confusing array of lines and numbers, and a handsome leather carrying case.

CON - a huge conglomerate of muscle, generally black, and very often intimidating.

WOODS (FOREST) - an area consisting of a multitude of sizes & species of tall, cylindrical cellulose-fiber units.
Dan McConnell sizes up a Jack Pine. (Photo by Ziemer)
Without a doubt, the SAF National Convention in Cincinnati highlighted our activities this year. Departmental funding enabled 35 of our members to attend, and experience first-hand what being a professional forester is all about. Ah yes...Cincinnati's Oktoberfest, the Reds baseball games, an all-you-can-eat-and-drink party at the Hudepohl brewery, the downtown nightlife, and first-class accommodations at Stouffer's—we all knew there were good reasons for becoming foresters!

And, oh yes, the convention was also pretty good! In addition to the opportunity to attend technical sessions concentrating on the theme "America's Hardwood Forests - Opportunities Unlimited," the convention also offered many activities specifically for students. We were able to meet other students and professionals, including SAF President Thomas B. Borden, at a poolside reception on Sunday (it's quite possible that the Christian Moerlein, an exceptional brew courtesy of Hudepohl, received the most attention!) Special discussion sessions were held throughout the convention in the Student Hospitality Room, which provided an informal atmosphere in which students could converse with various professionals on a variety of topics. At the Student Employment Forum, representatives from the state, federal, private, industrial, and educational sectors of our profession spoke on employment opportunities and offered advice on job-seeking strategy. A tour was also offered for students, which included stops at the Hillerich & Bradsby Company (Louisville Slugger baseball bats), a veneer and bandsaw mill in Indiana, and the woodlands of Indiana's 1975 Tree Farmer of the Year.

The entire convention experience was one that we certainly won't soon forget. We all wish to extend a sincere thank you to Dr. Bartelli and the entire Forestry Department for the financial support which made the experience possible for us.
Front row, left to right: Carole Tompkins, Laura Haydon, Lauri Winquist, Bob Hoffmann, Roger Dekett, Ed Steiner, Joel Kohtz. Second row: Brian Dykstra, Tim Bottenfield, Brian Wilczynski, Ed Doyle, Kevin Labumbard, Kathy Teahan, Alice Therrien, Jim Crandall, Dave Vyain. Third row: John Zwier, Bob Ziegler, Dr. Roswell Miller, Ron Brown, Steve Nelson, Bryon Wren, Bob Gilreath, Paul Essinger, Chad Radka, Mike Holmes, Kas Dumroese, Mark Goetz. (Photo by Stanfield)
The 1982-'83 school year proved to be an extremely busy and beneficial year for our Chapter members. Planning began last May, when it was decided to begin the upcoming year with a "Student Awareness Night." The evening was planned to provide students with the opportunity to meet the faculty and staff of the School of Forestry, and include a welcoming address by Department Head Dr. Lindo Bartelli and presentations by representatives of the various organizations within the department. Letters were sent to all incoming Freshmen during the summer, welcoming them to MTU and inviting them to attend the meeting. The activity was held the first week of school, and was attended by 120 students and faculty.

The major activity of the year was our trip to the '82 SAF National Convention in Cincinnati. Thirty-five of our members attended, making our Chapter the best represented Student Chapter at the convention. Our faculty advisor, Mr. Irvin Ziemer, was honored at the convention with the top SAF "Recruiter of the Year" award for 1981. Additional information on the convention is contained in a separate article, found on the following page.

The convention experience seemed to create a new sense of commitment among our members to making our organization a vital component of our educational experience. Throughout the remainder of the year, our Chapter and the Forestry Club held joint meetings and participated in social and business ventures together. As a result of this strengthening through members and dedication, both organizations experienced an extremely successful year.

Members participated in numerous fund-raising efforts during the year, including bake sales, car washes, baseball cap sales, and tree planting. We also operated a concession stand at the Small Woodlot Management and Forestry Exposition, which was sponsored by the School of Forestry and the Baraga Soil Conservation District, and held in the Spring at the Ford Forestry Center.

Not all of our efforts were profit-motivated, however. Once in the Fall and again in the Spring, members volunteered their services to local residents on what we called our "Community Service Days." We assisted the residents with odd jobs around their homes, ranging from raking leaves and washing windows to felling diseased trees. These service days were beneficial in several respects: the residents sincerely appreciated our efforts, we received the satisfaction of helping people with jobs which they could not practically do themselves, and we also obtained valuable experience in public relations.

Guest speakers for our meetings during the year was sponsored on an alternating basis by the two organizations. SAF-sponsored speakers included MTU faculty member Dr. Martin Jurgensen, Mr. Paul Forward of the USDA Forest Services's James W. Toumey nursery, and Mr. James Lorensen of the wood procurement staff of Proctor and Gamble.

Members also attended the Michigan SAF meeting in Marquette, and are making plans to attend the '83 SAF National Convention in Portland. 1982-83 Chapter officers were Paul Essinger, Chairman; Robert Gilreath, Vice-Chairman; Kevin LaBumbard, Secretary-Treasurer; and Laura Snyder, Program Coordinator.

Paul Essinger
Chairman

SAF officers not quite getting down to business. (Paul Essinger, Chairman; Laura Synder, Program Coordinator; Bob Gilreath, Vice-Chairman; Kevin LaBumbard, Secretary-Treasurer by Dumroese)
"The Commercial Forest Act—An Evaluation" was the subject of this year's Xi Sigma Pi symposium. The event was held in the Michigan Tech Memorial Union April 13, 1983.

Annette Kikendall, chapter president, chaired the meeting. Paul Essinger, program emcee, introduced the speakers. Dr. L. J. Bartelli, Forestry Department Head, began the session by welcoming those in attendance.

The panel of speakers included John Gaffney, district forester of the Copper Country State Forest, Baraga; John D. Schultz, editor and publisher of National Woodlands Magazine, of Traverse City; Barbara Clark of Houghton, Houghton County commissioner and member of the board of directors, Michigan Forest Association; Sue Sworden, Midland, executive director, Michigan Forest Association; John Force, Crystal Falls, vice president and district land manager, Keweenaw Land Association; Keith Richmond, staff management forester, American Can Corp., Amasa, and Dennis Renken, woodlands manager, Northern Hardwoods Division, Mead Paper Company, Houghton.

The symposium provided a thorough coverage of the history, provisions, problems and possible improvement of the Michigan Commercial Forest Act. It was generally acknowledged that the Commercial Forest Act has been a boon to private and industrial forest landowners who are interested in managing their lands for a long-term timber production and resource conservation.

The Commercial Forest Act continues to have its critics, it was indicated, the major objection being reduced revenues received by counties through the ad valorem property tax. These losses are mitigated in part by State payment to the counties in lieu of taxes. The availability of these lands for public hunting and fishing also constitutes a major local benefit, it was pointed out.

Despite certain shortcomings and disadvantages associated with the act, the panel agreed that its continuation is vital to the future of good forest management of the private lands of Michigan.

More than 200 persons attended the symposium. At a noon luncheon attended by approximately 50 persons, remarks on Michigan's forestry and forest-based industry were presented by Dr. Bartelli.
MTU Student Chapter of the Wildlife Society

The MTU Wildlife Society began this year with only a handful of students. But, as the year has progressed, the club has grown to 19 students ranging from Medical Technologists to Foresters.

The club began its activities early this fall by conducting some bird banding at the house of our advisor, Dr. Norman Sloan. Following this, students participated in the completion of the club's log cabin. During the winter quarter, the club collared snow-show hares, built wood duck nesting boxes, and sold wildlife poster prints to raise money for club activities.

The annual wildlife conclave was held in Stevens Point, Wisconsin this year. Although the club did not participate in the quiz bowl, they did present a poster board, and found the talks and field trips informative. Activities concluded this spring with the annual smorgasbord in mid-April.

This year provided many challenges for us, and with the help of the members, these challenges were met. I would like to thank all of the people who made this year a success, for it is they who have made it all worthwhile.

Ed Doyle
Officer

Ed Doyle, left, and Brian Davidson talk to representatives from American Can Corporation. (Photo by Crowther)
Freshman Class

Left to right: Chris Smith, Roger Grandahl, Glen Wenberg, Kevin Bryers, Lisa Lee, Joel Petroelje, Greg Drogowski, Randy Wisner, Nathan Behne, Ken Brummel, Russ Smith, Brian Fettig, Rick Parrish, Bob Selner. (Photo by Goetz)

Sophomore Class

Left to right: Mark Brouse, Jay Saunders, Andy McNickles, Phil LaBeau, Tom Bechia, Brent Leonard, Kurt VanShoick, Charlie McIntosh, Scott Saren, Chris Orlando, Ron Trevillion. Missing from photo: Amy Weber and Cheryl Jamieson. (Photo by Goetz)
Forester Staff

Left to right: Alice Therrien, Dr. C. R. Crowther, Kathleen Teahan, David Stanfield, R. Kas Dumroese, Stephen Nelson, Lauri Winquist, Mark Goetz, Ronald Brown.

Alice Therrien
Business Editor

Dave Stanfield
Darkroom Photographer

Lauri Winquist
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Mark Goetz
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Kas Dumroese
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Kathy Teahan
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Ron Brown
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Linda Pitts
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Steve Albee
Business Editor

Stephen Nelson
Activities Coordinator

Lori McCauley
Photographer

Dr. Crowther
Faculty Advisor

The 1982 Forester being stuffed in record time! (Mark Goetz, Lori McCauley, Charlie Becker, Lauri Winquist, Judy Buerckholtz, Bob Ziegler, Gail Houl, Kathy Teahan by Stanfield)

No, Kas! We won't work on Saturday!!
Doug Guilekson, careful at work, but not at play. (Photo by Crowther)
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