Michigan Tech
FORESTER 1985
Houghton, Michigan
Michigan Technological University
Published Annually by the Forestry Club
Volume XXVII

Judi Allen and Charlie Becker Burning the midnight oil (Photo by Cattelino)
Table of Contents

Salute ........................................ 4
Dr. Frayer's Letter .......................... 6
Faculty and Staff ............................ 7
Department News ............................ 12
Dean's List ................................... 14
Seniors ........................................ 15
Soil Judging .................................. 22
Alumni News .................................. 26
Feature .......................................... 29
Forest Sciences Lab Report .............. 34
Society of American Foresters .......... 38
Wildlife Club .................................. 41
FORESTER ..................................... 44
Summer Camp .................................. 48
Xi Sigma Pi Symposium ..................... 51
Sports ............................................ 53
Forest Products Research Society ...... 55
Winter Carnival .............................. 56
Advertisers .................................... 61

A Note From The Editors

The theme of the 1985 FORESTER is the LaCroix Plantation in Atlantic Mine. Over the years hundreds of forestry students have marked, thinned, and hauled countless cords of red pine out of the plantation while others have poured hours of time collecting plot data. With this theme of red pine we figure that just about all Tech foresters can add their own war stories.

The FORESTER is still the only departmental yearbook on campus, and after 36 years we are still going strong. The 1986 edition will be celebrating the MTU centennial and looking back at our department over the years. Budget cuts are threatening the existence of the FORESTER again, though, and we encourage you to continue your support to the FORESTER.

Chris and Sue
Editors
Forestry education at Michigan Tech involves plenty of classroom work, yes; but it also involves hands-on experience. The man instrumental in helping students obtain this experience — Dr. Glenn Mroz.

The FORESTER'S Salute this year goes to Dr. Glenn Mroz, in recognition of the substantial research grants he has brought into the department. These grants continue to benefit the department in several ways:

Numerous students have been employed part-time, gaining the hands-on experience in forestry that often is not dealt with in detail in the classroom.

Glenn has inspired interest in research encouraging many students to pursue graduate studies. The funding that he has obtained has helped Michigan Tech's Forestry graduate program expand to its present enrollment.

A MTU man at heart, Glenn received his B.S. in Forestry from Tech in 1974 and his masters in 1976. His indepth studies of "The Effects of Burning on Soil Nitrogen" (master thesis) did not satisfy his quest for knowledge, though, and after 2 years of teaching at Tech he felt the call of academia once again. At North Carolina State, Glenn pursued his Ph.D., this time delving into "An Evaluation of Whole-Tree Harvest Effects on Northern Hardwoods Soil-Site Relationships and Coppice Regrowth." Back at Tech in 1983, Glenn one again bestowed vast amounts of information upon his students of forest soils, silviculture, range management and watershed management.

Glenn has directed many research projects including a five-year project funded by the U.S. Department of Energy to examine the feasibility of coppicing hardwoods for energy production. Currently he is the project coordinator looking at tree productivity — measuring height, growth, diameter, mortality, and insect and disease activity before and after project ELF goes into operation.

Dr. Mroz is also an active member of many professional societies including the SAF, Sigma Xi (The National Research Society), Xi Sigma Pi, and The Soil Science Society of America. He was Vice President of the MTU Faculty Association from May 1982 to May 1983 and presently serves on the Publication Committee, Search Committee for New Faculty, and the Continuing Education Committee.

The Mroz family: Gail, Jennifer, Heather, and Glenn.

I'd rather be skiing.
In 1972, Glenn married Gail, his long time sweetheart. They have two daughters, Heather 12 and Jennifer 6. Gail is currently pursuing a degree at MTU in business, more specifically accounting, and is planning to graduate in May of 1986. An active, outgoing family, together they enjoy downhill skiing in the winter, and boating the beautiful Keweenaw waterways during the summer. In Glenn’s limited “spare-time” he is also refurbishing their 81 year old house, currently doing a beautiful job on their garage and family room.

(Above right) Third grade sweethearts: Glenn and Gail at their wedding in 1972.

(Below right) While most people write out their Christmas lists, Glenn likes to draw pictures of his toys. See page 55.

What does Glenn do in his spare time?

Both in and out of academia, Glenn is tagged with a wonderful sense of commitment and humor, keeping classroom attention by his movements, be it tripping or wearing antlers, and his anecdotes. Socially, Glenn is vivacious, commonly with a smile on his face and a joke close to follow.

These interests and activities, coupled with Dr. Mroz’s understanding and concern for his students, have brought to him the high regard of all who know him in the University and in his home community. The FORESTER takes pleasure in extending this Salute to Dr. Glenn Mroz.
Greetings to students, alumni and friends of the School of Forestry and Wood Products.

I've enjoyed my first year at Tech. In addition to becoming acquainted with faculty and students, I've had the opportunity to meet several alumni and friends of the School. I've been impressed with the enthusiasm these people have for Tech, the School, and the future of both.

The next year will be interesting to say the least. Revitalization of the Wood and Fiber Utilization Program will result in several new faces among the faculty. Close ties with the Institute of Wood Research will be fostered by these new faculty members. New faculty will also be added in forest management and remote sensing. Increased computer use, simulation models, and optimization techniques will be seen in the curriculum; and the new faculty members will better equip us to assist the forest products industry and public agencies.

By the time you read this, a position in forestry extension will have been filled at Tech—a joint effort between MSU and Tech.

Good news from the SAF—continued accreditation of the forestry curriculum.

Sad news includes the passing away of Bert Noblet, founder of the Department of Forestry. A scholarship fund has been initiated in his name; those interested in contributing can do so through the Michigan Tech Fund.

Write to us, visit, take pride in Tech forestry.

Sincerely,

W.E. ("Ed") Frayer, Dean
School of Forestry and Wood Products
Department Faculty and Staff

Dr. W. E. Frayer
Professor and Head, Department of Forestry
B.S., Penn State, M.F., Yale, Ph.D., Yale

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

Dr. Paul Berrang
Research Scientist
B.S., SUNY, M.S., Penn State, Ph.D., Penn State

Peter Cattelino
Research Associate
B.S., Michigan Tech

Dr. Alex Diner
Research Scientist
B.A., Moorhead State Univ., M.S., North Dakota State, Ph.D., Auburn Univ.

Lauri Denomie
Typist

Mary L. Frantii
Administrative Aide
A.A.A., Suomi College

Betty Gaff
Clerk
Sorry, no photo available
Dr. Martin F. Jurgensen  
Professor  
B.S. Syracuse Univ., M.S. Syracuse Univ., Ph.D. North Carolina State Univ.

Dr. David Karnosky  
Professor  
Ph.D. North Carolina State Univ.

Dr. John Kotar  
Assistant Professor  
B.S. Univ. of Wisconsin, M.S. Univ. of Wisconsin, Ph.D. Univ. of Wisconsin

Dr. Rolfe Leary  
Adjunct Associate Professor  

Gary W. Lenz  
Research Associate  
B.S. Southern Illinois Univ.

Hal O. Liechty  
Research Associate  
B.S. Michigan Tech

Andrea Longhini  
Executive Secretary  
B.S., Ferris State College

Dr. Gary W. Lyon  
Assistant Professor  
Ph.D. Univ. of Washington, M.A. Univ. of Washington, Ph.D. Univ. of Washington

Dr. Roswell K. Miller  
Associate Professor  
B.S. Syracuse Univ., M.S. Syracuse Univ., Ph.D. Univ. of Michigan
Dr. Glenn D. Mroz
Assistant Professor

Dr. David D. Reed
Assistant Professor

Robert L. Sajdak
Associate Professor
B.S. Michigan Tech
M.S. Univ. of Minnesota

Dr. Norman F. Sloan
Professor
B.S. Michigan Tech, M.S. Univ. of Wisconsin, Ph.D. Univ. of Wisconsin

Ann Strickler
Research Associate
B.S. Michigan Tech, M.S. Texas A&M

Dr. Bernard C. H. Sun
Associate Professor
B.S. National Taiwan Univ., M.S. Univ. of British Columbia, Ph.D. Univ. of British Columbia

Irvin R. Ziemer
Instructor
B.S. Michigan Tech, M.S. Michigan Tech
Ford Forest Staff

Carl C. Trettin
Manager, Ford Forestry Center

Mark A. Anderson
Programmer / Analyst A

Johann N. Bruhn
Research Scientist

James A. Johnson
Research Scientist

Sharlene Kanniainen
Senior Secretary

Elizabeth J. Reed
Research Associate

Stephen G. Shetron
Senior Research Scientist

David W. Wilson
Programmer / Analyst A

Forest Technology Staff

Bernard W. Carr
Associate Professor, Coordinator Forest Technology

Thomas L. Kelley
Assistant Professor Forest Technology

James P. Dougovito
Training Specialist Forest Technology
(Clockwise from above) Boil, Boil, Toil and Trouble Witches and Caldrons Bubble . . . (Gary Lenz by Goetz).
Dave Reed Shows the correct technique for diving catches in Snowshoe Softball.
(Photo by Goetz).
One Million Two Hundred Forty Seven Thousand Eighty Seven . . . Leaf Counting,
one of Pete C. and Tom H.'s favorite pastimes. (Photo by Goetz).
Dr. Alex Diner. Photo by Kas (? now wait a minute!).
Department News

One change being implemented in the curriculum at Tech is the movement of the Summer Camp experience into the regular academic year as Fall Camp. The camp experience will still include 16 credits of Forest Measurements, Land Measurements, Forest Inventory, Forest Ecology, and an introduction to Forest Science as course work for the students, and will continue to be a full ten weeks heavily oriented to field work. The change allows the field work to be the first forestry classes taken by transfer students, and does away with student objection to not having the summer for work experiences and income generation. The early (and fierce) spring insect season will also be avoided with this change, though the later (and also fierce) fall insect season will have to be faced.

In March, Ralph Duffek was hired as a District Extension Agent for Forestry in the Upper Peninsula. The position is jointly supported by Michigan Tech and the Michigan State Cooperative Extension Service. Ralph is working out of Houghton and the Ford Forestry Center at Alberta. His duties include providing educational programming in the areas of forest utilization, harvesting and marketing wood and forest products, forest management for landowners, loggers, sawmillers and other wood processors in the U.P.

The Ford Forestry Center at Alberta has been changed so that it can accommodate conferences by anyone wishing to use the facilities. Sleeping accommodations, meals, conference rooms and the rest of the facilities at the Center can be made available, depending on the needs of the users. Up to 110 participants can be accommodated in either one or multi-day conferences, away from the distractions of urban conference centers, and in the relatively rustic and wild setting of the Ford Forestry Center.

Staff changes at Tech include the addition of Dr. Paul Berrang, a forest geneticist, and Dr. Vincent L. Chiang in the wood and fiber program. D. Berrang is here as a research scientist and is working jointly with the Department of Forestry and the Biosource Institute. He has a degree from SUNY College of Environmental Science and Forestry at Syracuse, and received his doctorate from Pennsylvania State University. He came to work at Michigan Tech from the New York Botanical Garden’s Cary Arboretum. His past research has centered on genetic variation on physiological adaption to sites with stresses on low temperature, air pollution, low nutrient availability, and urban conditions. He is currently working on a genecological study of air pollution tolerance in hardwoods. Dr Chiang came to us from the University of Washington at Seattle with degrees in Pulp and Paper Technology and Wood Chemistry. His appointment is being split with the Institute of Wood Research. His research interests are in pulping chemistry, lignin chemistry, and the chemistry of conversion of by products. He will be teaching classes in the wood and fiber program.

The Department is expanding its teaching and research capabilities in the areas of harvest scheduling, growth and management, and remote sensing, and is seeking to fill new positions in these areas.

We were notified in the fall by the SAF National Office that Michigan Tech’s accreditation has been continued for another five years until 1989.

The Forestry staff and the University were saddened by the death of U. J. (Bert) Noblet, the first head of the Forestry Department. (See page 24)

Dr. Ros Miller has been writing articles about all aspects of woodlot management for the local Houghton newspaper for over a year now and the series has recently been picked up by three other papers in the U.P. Over thirty-five articles have been published to date and questions concerning the articles have come from as far away as Kentucky.

Eric Bourdo, recently retired as Dean of the School of Forestry and Wood Products at Tech, was among 65 distinguished foresters to receive the honor of Fellow status in the Society of American Foresters. The criteria for achieving Fellow status are outstanding service to forestry and to the Society. It includes contributions to the application of forestry, to education, to research, and to the advancement of the profession and the Society.
Dr. Stephen Shetron coordinated the regional American Society of Agronomy Soil Judging Contest in October. He also presented a paper at the 48th annual Soil Science Society meeting in Las Vegas.

Bob Sajdak toured the country this year. He presented a paper on Forest Vegetation Management for Conifer Production in the U.S. at a special symposium in Houston, TX in January, and another on Forestry Herbicides — Lake States at the U.S. Forest Service National Forest Pesticide Workshop in Missoula, MT in October. He also travelled to meetings in Rhinelander, WI, Winnipeg, Manitoba, and Marquette, MI.

Dr. Glenn Mroz presented seminars on the effects of whole tree harvesting on soil chemistry and physical properties, and on Harvesting, nutrient capital and continued forest productivity. He also participated in a teaching effectiveness retreat weekend and a creating the future retreat weekend. For more about Glenn, see the Salute article.

Dr. Dave Reed has read several papers at various professional meetings including the International Conference on Inventorying Forests and other Vegetation of High Latitude and High Altitude Regions in Fairbanks, Alaska, and the Midwest Forest Mensurationists Conference on Mackinac Island, Michigan.

Rolfe Leary will be leaving MTU to return to the U.S. Forest Service in St. Paul, MN.

The Ford Forestry Center Data Processing Headquarters has been moved from the basement of the Electrical Engineering Resources Center (EERC) up into the Forestry Building.

Dr. David Karnosky is another one of our vacationing maniacs, he attended conferences in Appleton, WI, Traverse City, Pacerville, CA, East Lansing, and Santa Cruz, CA. He also made a presentation on MTU Biotechnology to the MTU Board of Control in July. He has obtained funds for the program and we can see some of the results out back now when we look at the renovation of the greenhouse and laboratory facilities here at Tech.

Marty Jurgensen filled in the folks out at the Intermountain Forest Experiment Station in Moscow, Idaho about what is happening with ELF Antenna Research in Upper Michigan, and took another one of his little trips down under to New Zealand this spring.

Dr. John Kotar has continued to provide training in the application of the Habitat-Type Classification System to Forest Management. His field workshops provide participation and hands-on learning experience with the guides.

Dr. W. Ed Frayer, Dean of the School of Forestry, is working on the analysis of 500 plots in selected areas of Alaska to determine effort needed for evaluation of wetlands in the entire state. David Bowden, Professor of Statistics at Colorado State University, is the Co-Investigator.

Gary Lyon is the advisor for Xi Sigma Pi here at Tech starting in fall, 1985. He is currently developing a series of courses for professional foresters and forest engineers — primarily for the U.S. Forest Service and the Department of Natural Resources. It will be presented in the fall of 1985.
1984-85 Dean's List

The following students of the School of Forestry and Wood Products earned 3.50 to 4.00 grade point averages for the 1984-85 school year.

*Achieved a 4.00 grade point average

Spring Quarter

**Freshmen:** David R. Kari  
**Freshman Technicians:** Anthony M. Furlich  
**Sophomore Technicians:** Thomas D. Becia, Kenneth R. Brummel, Brian K. Frittig, Wayne E. Park, Eric W. Preston, Russel E. Smith  
**Juniors:** Keith S. Eldred Jr., Robert J. Sommer, Mary J. Sunblade*  
**Seniors:** Charles A. Becker, Cindy S. Bredeson*, Judy L. Buerckholtz, John R. Carpenter, Lori A. Carpenter, Kas Dumroese*, Patrick J. McGlew*, Andrew T. Mulcahey, Gerard A. Sherman, Laura N. Snyder, Kevin J. Wickey*, Brian G. Wilczynski

Summer Quarter

**Sophomore Technicians:** Anthony M. Furlich  
**Juniors:** Karen A. Nuyttten, Lawrence F. Strzaika

Fall Quarter

**Freshmen:** Carl I. Johnson  
**Juniors:** Mary J. Sunblade  
**Seniors:** Richard G. Barber*, William S. Eighmey, Mark A. Goet Susan B. Hart, Jeffrey J. McCombs, Robert J. Sommer, David Stanfield, Kevin J. Wickey*

Winter Quarter

**Freshmen:** Carl I. Johnson  
**Sophomores:** James L. Post  
**Sophomore Technicians:** Nathan W. Dehne, Anthony M Furlich*  
**Juniors:** Joanne M. David, Joseph A. Foster, Heather K. Fry  
**Seniors:** Richard G. Barber, Lori A. Carpenter, Keith S. Eldred Scott A. Gabriel, Susan B. Hart, Roy E. Lefevre, Chad A. Radka Robert J. Sommer*, David B. Stanfield, Kevin J. Wickey*

The Forester Congratulates these students on the fine achievements. Keep up your outstanding work!
1984-'85
School of Forestry and Wood Products and
Forest Technology Graduates

Steve Anderson
Forestry
379 Blair Rd.
Reading, MI
CLUBS AND ACTIVITIES:
SAF.

Richard G. Barber
Forest Biometrics
120 East 2nd St.
Hillman, MI 49746
WORK EXPERIENCE: Forest Management, Mich. DNR.
CLUBS AND ACTIVITIES: SAF, Ski Club.

Irene M. Borak
Forestry
1280 Tisdale
Roscommon, MI 48653
WORK EXPERIENCE: Research Asst., Dukes Exper.
Forest, MTU Student Research Asst., Pathology.
CLUBS AND ACTIVITIES: SAF, Wildlife Society.

Lori Carpenter
Wildlife
603 Park St.
Bellaire, MI 49615

Nathan Dehne
Forest Technology
810 Westview St.
Cleveland, WI 53015
CLUBS AND ACTIVITIES: SAF, HONORS, Tau Omega Pi.

Greg Drogowski
Forest Technology
6225 N. Rochester Rd.
Rochester, MI 48064
CAREER INTERESTS: Wildlife, Forest Management, and Fire Control.
WORK EXPERIENCE: Volunteer, US For. Serv. CLUBS AND ACTIVITIES: Wildlife Society, SAF.
William Eighmey  
Forestry  
909 Hilldale  
Royal Oak, MI 48067  
WORK EXPERIENCE:  
CLUBS AND ACTIVITIES:  
Mich. Tech. Forester Staff, SAF, Vice-Pres. Soccer Club, Photography Club. HONORS:  
Xi Sigma Pi.

Keith S. Eldred, Jr.  
Forest Management  
9303 S. Johnson Rd.  
Blanchard, MI 49310  
CLUBS AND ACTIVITIES: SAF. HONORS:  
Forest Ranger, Xi Sigma Pi.

Tony Furlich  
Forest Technology  
N10594 Puritan Rd  
Bessemer, MI 49911  
WORK EXPERIENCE: Gogebic Co. Forestry Dept.  
CLUBS AND ACTIVITIES: SAF.  
HONORS: Vice-Pres. Tau Omega Pi, Neil S. Mackie Scholarship.

William G. Glander  
Forestry  
Box 122  
Harvel, IL 62538  
CAREER INTERESTS: Forest Mathematics, Hydrology, Geology.  
WORK EXPERIENCE: Farming.  
CLUBS AND ACTIVITIES: SAF. HONORS: Future Farmers of America Home Improvement Award, Silver Award Forest Skills Contest.

Shawn P. Hagan  
Forest Management/Wildlife  
38800 Chartier  
Mt. Clemens, MI 48045  
CLUBS AND ACTIVITIES:  
Pres. and Sec./Treas. Wildlife Society. HONORS: Xi Sigma Pi.

Kurt A. Hennig  
Urban Forestry  
1037 S. Westmore Apt. 207  
Lombard, IL 60148  
WORK EXPERIENCE: Tree Surgeon, McFarland Tree Service.  

Dana LeBlanc  
Wildlife  
1154 1st St.  
Wyandotte, MI 48192  
WORK EXPERIENCE: Dow Gardens, Bighorn National Forest.  
CLUBS AND ACTIVITIES: Wildlife Society. HONORS: Xi Sigma Pi, Phi Sigma.

Lisa M. Lee  
Forest Technology  
32925 W. Chicago  
Livonia, MI 48150  
WORK EXPERIENCE: Research Asst., Dukes Exper. Forest.  
CLUBS AND ACTIVITIES: Sec./Treas. SAF, Sec. Forest Tech. Club, Volunteer Dial Help.
Jeffrey J. McCombs
Forestry
10240 Mack Island Rd.
Grass Lake, MI 49240
CAREER INTERESTS:
Silviculture, Urban Forestry.
HONORS: Xi Sigma Pi.

Wayne Park
Forest Technology
1903 B Woodmar Dr.
Houghton, MI 49931

Chad A. Radka
Forest Management
209 Partridge Ave.
Alpena, MI 49707
CAREER INTERESTS:
Timberland Management and
Consulting. WORK
EXPERIENCE: Ranger
Naturalist — Thorne Swift
Nature Preserve, Surveyors
Aide, YCC Groupleader.
CLUBS AND ACTIVITIES:
SAF.

Richard Rogers
Forestry
242 Rustic Circle
Union Lake, MI 48085
WORK EXPERIENCE: Kilmer
Landscaping, MTU Field
Tech. Drainage and Stem
Analysis Projects. CLUBS
AND ACTIVITIES: Wildlife
Society, SAF, Ski Club.

Patricia E. Ross
Forestry
600 E. Edwards
Houghton, MI 49931
WORK EXPERIENCE: US Air
Force, FAA-NATCOM, MTU
Student Research Asst.
Computer Analysis.

Joseph L. Salani
Forest Management
945 Lincoln
Hancock, MI 49930
WORK EXPERIENCE: Field
Research Asst. CLUBS AND
ACTIVITIES: SAF.

William J. Simmons
Wood and Fiber Utilization
1030 Kingsview
Rochester, MI 48063
WORK EXPERIENCE: Student
Programmer Ford Forestry
Center. CLUBS AND
ACTIVITIES: SAF, FPRS, and
Racquetball. HONORS: Xi
Sigma Pi.

Robert J. Sommer
Forest Soils
320 Jeffrey St.
Cedar Springs, MI 49319
WORK EXPERIENCE: Range
Tech., Tank Truck Operator,
Fire Control, Rawlins BLM;
Helitack Air Serv. Mgr. Wind
River Indian Reservation;
For. Tech., Tank Truck
Crewman Rock Springs BLM;
Medicine Bow National For.
HONORS: Tau Omega Pi.
David B. Stanfield
Forest Management
1046 W. 11th St.
Hobart, IN 46342
WORK EXPERIENCE: Student Research Asst. Pathology Lab. CLUBS AND ACTIVITIES: SAF.

Chris Tooley
Forest Management
922 13th St. S.E.
Rochester, MN 55904

Carey Westerback
Wood and Fiber Utilization
1212 Wisconsin Ave.
Gladstone, MI 49837
CLUBS AND ACTIVITIES: FPRS.

Glen Tolksdorf
Forest Management
206 W. 6th St.
Houghton, MI 49931

Debra L. Warnstrom
Forest Management/Business
103 Poplar St.
Ironwood, MI 49938

Kevin Wickey
Forest Soils
33781 Ackey Rd.
Burr Oak, MI 49030
WORK EXPERIENCE: Programmer for Numerically Controlled Mills and Lathes, Student Trainee-SCS. CLUBS AND ACTIVITIES: SAF, Soil Cons. Soc. of Amer. HONORS: Xi Sigma Pi.
Master's Graduates

John Byrne

Wayne Chao
"The Roles of Hemicellulose and Lignin in Bonding Press Dry TMP Fiber."

Ivan Eastin
"The Stress-Relaxation Characteristics of Dry-Process Resinless Hardboard."

Paul Essinger
"The Distribution of Habitat Types in Northeastern Wisconsin in Relation to Landforms and Climate."
Gary Lenz
"Effects of Commercial Stand Conversion Practices on Soil Nutrient Regimes of Northern Hardwood Sites."

Valerie Novak
"Tree Inventory of Michigan Tech's Main Campus."

Marilyn Wolosiewicz
"A Comparison of Acetylene Reduction Rates and Microaerophilic Bacteria Numbers in White-Rotted and Brown-Rotted Wood in Northern Idaho."

Hal Liechty
"The Effects of Seven Thinning Treatments on the Growth, Yield, and Economic Returns of a High Site Quality Red Pine Plantation."

Kathleen Teahan
"Rooting of European Larch (Larix decidua) Tissue Culture Plantlets."
The American Society of Agronomy (ASA) is a professional organization of soil scientists and agronomists. One of the functions of the ASA is to cultivate university student organizations that are interested in soils and crops. A popular student function is soil judging. Because of this interest, ASA has developed regions throughout the United States. Each year schools with soil judging teams will travel to a host institution within a region and compete in a contest. The winning team will then travel to a national contest somewhere in the United States.

Soil judging involves describing four soil profiles in pits (6 feet deep, 6 feet wide and ramped for easy access) for horizon color, texture, structure, thickness, and boundary. Students also describe the landform and are to classify the soils by Soil Taxonomy. Several universities have classes especially designed for students who are interested in soil judging.

During October 1984 MTU School of Forestry hosted the ASA Region III soil judging contest. We were selected because of our previous involvement in soil judging and a regional contest had never been held in this region with Spodosol soils. Ninety students from nine universities in Ohio (2), Indiana (1), Illinois (2), and Wisconsin (4) participated. The contest involves one to two days of preliminary soil judging of soils similar to those soils for the official contest. A regional contest can involve up to three days of preparation and judging at the host university for each of the teams.

To host a regional soil judging contest requires time and assistance for selecting sites, describing soils, and correspondence. As host I am taking this opportunity to thank all the forestry students who helped with the contest. Without this assistance a successful contest would not have been possible.

Stephen G. Shetron
(Clockwise from left) Eunice Padley checks things out. (Photo by Borak).
Supervision is hard work, right Joey? (Photo by Borak).
You think it’s what? (Deb Glas by Borak).
You have to really love your work to sing about it: The Antigo Silt Loam Song. (Photo by Borak).
Okay, we have the data. Now what?? (Photo by Glas).
In Memoriam:

Bert Noblet
1897-1984

U. J. "Bert" Noblet, professor emeritus of the School of Forestry and Wood Products and founder of the MTU Forestry Department died November 26, 1984, in Gladstone, Michigan. He was 87.

A U.P. native, Noblet was a four-letter man in football, baseball, and track at Gladstone High School and was the pitcher on a U.P. championship baseball team.

After brief service in the U.S. Navy in World War I, he entered Michigan State University in 1918 where he played football, hockey, and track. He was State's starting halfback for two years and also played quarterback for two years. The highlight of his career with the Aggies (now Spartans) was on November 13, 1920 when he scored five touchdowns against the University of Chicago team coached by the legendary Amos Alonzo Stagg.

While at Michigan State, he also played against two charter members of the U.P. Sports Hall of Fame — Notre Dame’s immortal George Gipp and Hank Anderson.

Noblet graduated with a B.S. degree in forestry in 1922 and then went on to serve as coach and athletic director at high schools in Grand Rapids and Cadillac before being hired as Director of Athletics at Michigan Tech in 1929. He later received his M.S. in forestry, also from Michigan State.

At Tech he coached football, hockey, and track and one of his early teams made Ripley’s ‘Believe It or Not’ as the first hockey team to use airplane transportation. His three sons, Jack, Dick, and Pete, all played hockey for the Huskies, and Jack earned All-American honors as a goalie.

Noblet had always thought that Michigan’s Upper Peninsula should have a forestry school and that Michigan Tech would be the ideal institution to house it. His dream came true in 1936 when the Forestry Department was established and he was appointed its first head. During his 33-year career at MTU, he saw student enrollment in the Forestry Department grow from 10 to 650 students. He retired in 1962.

Noblet was responsible for obtaining many large parcels of land from industry and government to Michigan Tech’s forestry research programs, including the Ford Forestry Center at Alberta and the Otter River Forestry Camp. He received many professional honors over the years, including the Society of American Foresters Distinguished Service Award, the Michigan Tech Citation of Tribute, the Distinguished Service Award from the Houghton-Keweenaw Soil and Water Conservation District, and the MTU Distinguished Service Award. He was also recognized for meritorious service by the MTU Faculty Association and was elected to the Upper Peninsula Sports Hall of Fame in 1978.

Noblet married the former Gladys Nebel, who taught music and the U.P. for many years. She died on February 1, 1977.

He is survived by three sons, Jack of Escanaba, Dick of Bedford, Texas, and Pete of Sault Ste. Marie, and two daughters, Ann Louise Smith of Birmingham and Catherine Masyra of East Detroit.
Kotar Wins 1984-1985 Big Screw Award

Dr. John Kotar was presented with the annual Big Screw award, given to Michigan Tech's most "popular" instructor.

Each year students nominate their "favorite" instructors for the award; the ten instructors with the most nominations then become finalists. Nominations and voting all occurred in the form of penny votes cast by students. This year Kotar with $44.94 in votes, beat out candidates Dr. Karl Ottenstein, with $28.75, and Dr. Steve Seidel, with $25.18. The Big Screw award raised a total of $173.12, to be donated to a charity of the winner's choice.

Kotar has picked the March of Dimes to receive this year's Big Screw contribution. He picked the March of Dimes "because it's one of the more worthy causes. It easily came to mind. I've contributed to the March of Dimes before, so it seemed reasonable."

Kotar has taken the whole affair with humor. "It's an interesting and fun idea," he said. He still had doubts running for the Big Screw, though, until "I saw who some of my colleagues were who were up for the award — there's some pretty fine people there — I realized that I wasn't in such bad company."

The Big Screw award is sponsored by Alpha Phi Omega, who originally got the idea from MIT's chapter of Alpha Phi Omega.
1984 — James Crandall: currently working for the Peace Corps in Honduras and loving every minute of it. 1983 — Annette (Kikendall) Prochaska: married a Tech graduate in Chemical Engineering and now living in Anderson, Indiana. . . . Kevin and Laurie (Winquist) LaBumbard: were married in Sept., 1983. They lived in Texas for a year and a half, but now are back home in Michigan. . . . Lori (McCausley) Hansen: married an Electrical Engineer from Tech and is currently living in Lansing. 1981 — Marc Gillette: works part time as a Plant Protection Aid for the USDA and has begun free lance writing of conservation articles. . . . Tim P. Gahl: is working as a Land Management Forester in Garnett, South Carolina. . . . Peter M. Baker: was transferred from the Ouchita National Forest in Arkansas to the Southern Forest Experiment Station in Mississippi where he will be performing forest surveys in eastern Texas.

1980 — Joe Walsh: moved to St. Cloud, Minn. to work at Champion International in Sortell, but still frequents the trout streams in the U.P. . . . Bill Carlin: is now a Soil Consultant and Certified Sanitarian in Gastonia, N.C. Also moonlights as General Manager for a mountain craft and country furniture wholesale business. 1979 — Laura (Holbing) Liston: was married in June of 1984 and is still working with ATT-Communications in Chicago, Illinois. . . . Craig Mullenbrook: is presently the Log Yard Foreman at Hartzell Veneer, Inc. in Piqua, Ohio. 1978 — Kathy White: is currently the Assistant Resource Officer on the San Jacinto District of the San Bernadino National Forest, and is now engaged. . . . Gary H. Vollrath: is the Service Forester for the Ohio Department of Natural Resources, Division of Forestry. . . . John W. Bock: is the Assistant Director of the Lodge Food Service at the University of Montana and spends a lot of his free time enjoying the great outdoors. . . . Christine (Rowland) Younger: is currently the Assistant Park Superintendent at Washington State Park in DeSoto, Missouri. Since graduating from Tech, she has also received a master’s degree in Park Administration from MSU.

1977 — Robert J. Wagner: is married and is currently a Soil Scientist on the Ontonagon Ranger District of the Ottawa National Forest. 1976 — John T. Koehler: is growing Christmas trees and sunning in Florida. . . . James Hoxtie: is a Logging Supervisor with Pope and Talbot, Inc. in the Black Hills of South Dakota. . . . Bruce and Edie (Lichter) Waite: Bruce is working towards certification as a Silviculturalist at the Silviculture Institute sponsored by Oregon State University and the University of Washington. They are living in Oregon. . . . Cathrine Riley-Hall: presently employed as an Arborist with the county of Fairfax, Virginia. Was elected to the Board of Directors of the International Society of Arboriculture and became a licensed Tree expert in Maryland. 1975 — David R. Anderson: is a Procurement Forester in the Heber Springs District for Arkansas Kraft Corporation, and was married in June, 1984.

1970 — Donald M. Mazany: works in Phoenix as a specialist in commercial life and health insurance. 1967 — Art Widerstrom: is the Area Supervisor, Metro Area for the Minnesota DNR. 1966 — Ralph L. Chase: is a Certified Public Accountant with his own office in Lyndonville, Vermont. He says for any 'ole foresters from Tech who are in the area to look him up. 1965 — Donald J. Omernik: is working with the Consolidated Papers Inc., Timberlands Division as the Tree Farm Family Supervisor. The Company is one which offers forest management assistance to non-industrial woodland owners at no expense. 1962 — Jack G. Bolt: is working for Durr Industries in Plymouth, MI as a Sales Engineer for the paint finishing systems . . . Bob Brisson — says that the Tech Alum get together at the Quebec SAF meeting was very enjoyable!

1961 — Harold T. Nygren: is group leader for Land Management Planning of the PNW Region, Forest Service. He was recently elected secretary of the E-Z Working Group, Land Use Planning and Design, Society of American Foresters and would like to correspond with anyone interested in this subject area . . . Rod Nelson: is still the chief of the operations section, Bureau of Parks and Recreation with the Wisconsin DNR. 1959 — Jim Kirschbaum: is an Area Forester in the Coastal Region for Washington DNR. 1957 — Vernon A. Fitzpatrick: retired from the MDNR where he was the manager of McLain State Park in Hancock, MI . . . Christy T. Hauge: moved to Stevens Point, Wisconsin in 1983 and is employed by both the University of Wisconsin-Extension and the University of Wisconsin-Stevens Point. 1953 — Edgar D. Robinson: retired in Aug., 1984 from Simpson Timber Co, . . . 1952 — W. J. Thompson; is the 1985 Chairman for the Louisiana SAF, and also the first Vice President of the Louisiana Forestry Association.

1951 — Raymond R. Norkoli: retired in July, 1984 and is enjoying it to the hilt . . . Robert R. Raisanen: is the manager of Environmental Duality for the Upper Peninsula Power Company in Houghton, MI. 1950 — Robert E. Harju: retired in June of 1984 from the USFS where he worked last on the Huron-Manistee National Forests. His retirement concluded 30 and one-half years of Federal Service. 1949 — Ray St. Onge: retired in 1982 from the Water Department of the City of Detroit after 32 years of service and is now living in Crystal Falls, MI . . . Willard C. St. Onge: has been on disability retirement for nearly 4 years and says that he hasn’t had a single day of rest yet, and comments that people who dread retirement for lack of things to do must lead a pretty dull life! 1941 — C. W. Rollman: would like to know the status and location of the members of the classes of ’40, ’41 and ’42. Anyone with this information, please contact him.
We, the staff of the 36th edition of the Forester would like to honor the founders of our yearbook — the Forestry Club of 1949-50 — during the Forester's 35th year.

To coincide with the celebration of MTU's centennial, next year the Forester will, in part, be featuring the history of our yearbook. If you have any stories or ideas that you would like to see included, please feel free to send them to us (Photos, war stories, or history lessons, we would like to dig them all out of the files.)

Hey Kas — A new record! The 1985 Edition was completely done before graduation!
The William Payne LaCroix plantation was initially established as part of a large revegetation project implemented by the Copper Range Company in the early 1950's. The main portion of the plantation was established in 1950 and 1951 by machine planting 2-0 red pine stock on a 6x6 foot square spacing.

Initially the plantation was managed for Christmas tree production, however it was soon apparent that the red pine were not suitable for commercial markets and the plan was abandoned. By 1972 some type of thinning operation in the oldest sections of the plantation was needed. At this time Dr. Michael Coffman, an Assistant Professor of silviculture in the School of Forestry and Wood Products at Michigan Technological University, initiated a series of thinning studies in the plantation.

In each of the four succeeding years beginning in 1974 triplicate 1/10 acre plots of each of eight thinning treatments (Table 1) were established. Diameter at breast height and number of merchantable sticks for each tree within the plot were recorded at the time of the initial thinning and every three years thereafter until 1979 by the students. In 1983 all plots were again remeasured.

Many of you may remember participating in this study as students from the silviculture and timber harvesting classes and the Forestry and Wildlife clubs. In all 96 plots were delineated, marked, and thinned giving many of us our first experience in the fine art of hanging up trees. It also gave Gene Hesterberg, Denny Baril, Ros Miller, Irv Zieme and others a lot of experience “unhanging” trees. Timber harvested from the study was donated by the Copper Range Co. making the Forestry Club one of the most financially sound on campus.

Preliminary analysis in 1983 of the study design and plantation site indicated that the study was unique in two aspects: (1) the site quality of the plantation (site index 81) was extremely high and (2) individual studies in the plantation had been thinned at different intervals (study 1 established in 1972 was thinned at a six year interval while study 2 which was established in 1973 had only been thinned once). These factors helped to increase interest in the project and funding was received from the Center for Intensive Forestry Research in the Northern Regions and the Mead Corporation in order to complete an evaluation of the thinning studies. What follows is a report on work in which probably half the graduates of the MTU Forestry Department participated in.

An initial problem at the beginning of our evaluation was how best to compare the growth of the various treatments for a wide range of products. To standardize methods taper and height equations were derived from a...
number of trees felled for stem analysis. The equations allowed us to correct for variability in height measurements (which is often hard for novice foresters to estimate) using diameter measurements (which is an easy and reliable measurement). The evaluation of the thinning studies are now complete and the results of one individual study (1973 study) are presented in Table 1.

As expected diameter growth generally increased with decreasing treatment residual density. Thus diameter growth was two and a half times greater in the 60 ft.² residual basal area treatment than in the unthinned control. Basal area growth, although relatively uniform over a wide range of residual densities, was maximized over a much broader range of residual densities than has previously been found in studies implemented on lower quality sites. This can be attributed to the higher productivity of the study site which tended to favor basal area growth in lower residual density treatments while inhibiting growth in the lighter thinnings at the later stages of the study. Given a shorter thinning interval or a lower site productivity, growth would have been maximized at a higher and much narrower range of densities.

Due to the high initial dbh of the plantation at the time of the initial thinning there was little ingrowth in the merchantable product classes so total and merchantable volume growth were similar. Although six year merchantable volume growth was significantly higher in the unthinned control and 120 ft.² B.A. treatments, by the end of 1983 the volume growth
Table 1: Average diameter, basal area, total cubic foot, merchantable cubic foot, and sawtimber growth between 1973-1983 for the 1973 study.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Average Dbh Growth (Inches)</th>
<th>Basal Area Growth (Ft.²)</th>
<th>Total Volume Growth (Ft.³) /Ac./Yr.</th>
<th>Merchantable Volume Growth (Ft.³)</th>
<th>Sawtimber Volume Growth (Bd. Ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60 Ft.² B.A.</td>
<td>.35 a</td>
<td>8.1 a</td>
<td>252 a</td>
<td>259 a</td>
<td>963 a</td>
</tr>
<tr>
<td>Alternate Row</td>
<td>.25 b</td>
<td>7.5 ab</td>
<td>258 a</td>
<td>259 a</td>
<td>672 a</td>
</tr>
<tr>
<td>90 Ft.² B.A.</td>
<td>.22bc</td>
<td>7.1 ab</td>
<td>252 a</td>
<td>256 a</td>
<td>698 a</td>
</tr>
<tr>
<td>30% Height</td>
<td>.24 b</td>
<td>7.3 a</td>
<td>281 a</td>
<td>284 a</td>
<td>854 a</td>
</tr>
<tr>
<td>Every 3rd. Row</td>
<td>.18 bc</td>
<td>6.3 ab</td>
<td>247 a</td>
<td>243 a</td>
<td>440 a</td>
</tr>
<tr>
<td>120 Ft.² B.A.</td>
<td>.19 bc</td>
<td>7.9 a</td>
<td>297 a</td>
<td>294 a</td>
<td>853 a</td>
</tr>
<tr>
<td>Control</td>
<td>.14 c</td>
<td>5.9 b</td>
<td>287 a</td>
<td>271 a</td>
<td>411 a</td>
</tr>
</tbody>
</table>

Values in individual columns with the same letter are not significantly different at 5% probability level.
of all treatments were not significantly different. This again was due to the effect of site productivity on basal area growth.

Sawtimber growth on all treatments was extremely high. By the 1983 measurement the 60 ft.² B.A. treatment had 9,635 board feet of sawtimber per acre. Significant differences between sawtimber yields were not evident mainly due to the variability in average diameter between plots before the initial thinning as well as the small plot size.

In order to evaluate volume response to thinning intervals, the volume growth for the 1972 (thinned at a six year interval) was compared to the 1973 study. Since the studies were initially thinned one year apart no direct comparison could be made. However, for each study the third measurement periodic total volume growth (1978-1983 for the 1972 study and 1979-1983 for the 1973 study) was expressed as a percent of their respective initial six year growth (Figure 1). As indicated by Figure 1 plots which were thinned in the 1972 study had growth rate reductions in the third measurement period in comparison to plots which were not thinned. It is apparent the application of these thinning treatments on a six year compared to ten year thinning interval would lead to reduced total volume growth.

At this time another thinning is planned for the 1972 study and the measurement and maintenance of the study plots is being continued.
Hardwood Thinning Symposium — A Success
John A. Sturos
Principle Mechanical Engineer
Forest Service — USDA
North Central Forest Experiment Station
Forestry Sciences Laboratory
Houghton, Michigan

A hardwood thinning symposium entitled "Hardwood Thinning Opportunities in the Lake States" was held in April 1984. The highly successful symposium was a result of a cooperative effort by the USDA Forest Service's North Central Forest Experiment Station, the Department of Forestry and Wood Products of the Michigan Technological University, Bay de Noc Community College, Michigan Department of Natural Resources, Michigan Association of Timbermen, and the Michigan-Wisconsin Timber Producers Association. Participants came from the three Lake States plus Illinois, Indiana, Pennsylvania, West Virginia, and Canada. In all, 22 speakers and moderators presented and discussed new information on the silviculture, harvesting, economics, and product potential for hardwood thinnings.

The group was welcomed by Dr. Robert Hann, Director of the USDA Forest Service's North Central Forest Experiment Station. He said, "This is an exciting time for forestry in the Lake States where major industrial expansions are taking place to take advantage of an expanding hardwood resource base which is close to major markets in the eastern part of the U.S."

The keynote speaker, Dr. Henry Webster, Chief, Forest Management Division, Michigan Department of Natural Resources, stressed the importance of this symposium. "We appear to be on the edge of what may in fact be a major breakthrough in hardwood utilization. The forest resources are again a major part of the fundamental social and economic agenda of the Lake States region. This simple fact places a premium on professionally competent, technically adequate, and socially sensitive management of the forest resources. Our sessions here today help to lay a part of a strengthened basis for such management. That is why this symposium is so extremely important," Webster concluded.

Following the keynote address, three Forest Service research scientists made presentations. Jack Spencer spoke on the hardwood resource in the Lake States and indicated that the Lake States is the only region in the country where sawtimber stands do not predominate, thus illustrating the need for thinnings on large acres. Gus Erdmann followed with some silvicultural guidelines that should be considered in thinning hardwoods. John Sturos then gave an overview of five harvesting case studies of thinning hardwoods in Michigan and Wisconsin, where several levels of mechanization were compared including both roundwood and whole-tree harvesting systems. Gus Erdmann was on the program for the second time to present a 10-year silvicultural evaluation (growth and regeneration) of a 1974 thinning case study.

Three research scientists from Michigan Technological University, James Johnson, Johann Bruhn, and Carl Tretin, gave presentations on a silvicultural evaluation of a 1978 thinning case study, damage to the residual stand caused by logging equipment, and the impact of harvesting equipment to soil, respectively. Considerable interest and discussion was generated concerning the acceptable level of tree damage and soil compaction caused by thinning operations. A key point was that most soil compaction is caused by the first two or three passes of logging equipment. Therefore, to limit overall soil compaction, the logging pattern should be designed to limit the number of skidding trails and other equipment paths as few as possible.

Richard Bierlich, Operations Manager for Owens-Illinois, spoke on his industrial thinning experience. He stressed the importance of proper supervision with incentives for efficient, safe, and quality work. A logger's perspective of thinning was given by Marvin Roberts (a former logger), District Land Manager for Champion International. He emphasized the need for a practical, common sense approach to thinning hardwoods. He stated, "The proper equipment, the right people, a good job of marking trees, a correct job layout, and planning all enable the logger to reduce logging costs. The logger who performs these thinnings successfully is a specialist, and therefore many of his problems
This new technology can provide jobs at low investment levels per job while improving the hardwood forest. Uneven-age management of hardwoods means a series of thinnings, and it does require a commitment to the future."

Gerald Thiede, Forest Resource Economist, Michigan DNR, gave an overview of the economics of thinning from the forest management standpoint. He emphasized that the assumptions made in any analysis are critical, but generally hardwood management pays. Precommercial and commercial thinning pays, but the degree of success depends on the interest rates, specific site conditions, and the response of the residual stand to the thinning.

Edwin Kallio, research scientist of the USDA Forest Service, discussed existing and future products from thinnings and the application of a new "System 6" sawmill process to the hardwood thinnings. System 6 is a new technology to convert small-diameter, low-grade timber to a new high-value product called "furniture blanks." This new technology can provide jobs at low investment levels per job while improving the hardwood forest.

The last session was a seven-member panel discussion on forest management perspectives of hardwood thinning. Myron Smith, Nicolet National Forest, indicated that five of the national forests in the Lake States have great opportunities for producing quality hardwoods by thinning poletimber stands now, but he emphasized that the objective of corporate timberland ownership is to grow trees to make money and that land ownership size, long-term objectives, and income alternatives all play a role in how northern hardwood stands should be developed.

James Halvorson, Wisconsin DNR, stated that, over the next 10 years, 3.5 million cord equivalent of hardwoods will be ready for harvesting on Wisconsin’s public forest, with the majority of the presently available hardwoods falling in the 5- to 10-inch pole-size class. The marking technique chosen will have an impact on how well the manager addresses the silvicultural needs, damage potential, logging chance, and forester productivity. Richard Conner, Jr., Pine River Lumber Company, represented the sawmill industry and listed a number of concerns he has in regard to hardwood thinning. Some of them are as follows: his concern for the public agencies to emphasize hardwood thinnings in their timber sales at the expense of their sawtimber stands; lack of markets for basswood; the abandonment of railroad transportation; over-thinning; conventional skidding methods, which he favors; versus the strip method; and the need to acquaint our elected officials with the fact that the hardwood forest can support increased harvests.

David Karnosky, Michigan Technological University, listed a number of research needs for hardwoods in the Lake States. They included site evaluation, growth and yield information, economics, equipment for converting and preparing winds residue for energy, increased utilization of low-quality hardwoods, all-aged hardwood management, and the impact of harvesting to the residual stand and site. Lloyd Casey, Northeastern Area State and Private Forestry, USDA Forest Service, stated that better markets for fuelwood and chips have enabled hardwood thinnings to be completed commercially, but a number of problems still exist, especially in the Northeast. They include local restrictive cutting ordinances, limited markets in localized areas, small-sized tracts per average woodland owner, and the lack of available professional forestry advice. Eugene Carpenter, North Central Forest Experiment Station, gave an excellent overview of the untapped timber supply and hardwood thinning opportunities on Michigan’s nonindustrial private forests.

The technical session concluded with an excellent "wrap-up" by Craig Locey, Wisconsin DNR. The moderators for the technical sessions were James Mattson, North Central Forest Experiment Station, USDA Forest Service; Art Abramson, Champion International; Lee Hanks, Region 9, USDA Forest Service; and John Gaffney, Michigan DNR.
Origins of a Michigan Tech Twig? Glenn Tolsdorf, "Reindeer" Rick Rogers (Photo by Borak)

HAMS!! Kurt Henning, Bill Eighmey (Photo by Parrish)

Dana shows his true form??

Bill this isn't a Hacky Sac!!! (Joann David, Photo by Parrish)

"Three's Company" Andy Marciniai, Heather Butler, Lisa Lee (Photo by Drogowski)
ACTIVITIES

Photo by Eighmey
MTU Student Chapter

Society of American Foresters

We know the sun is bright Ron. Are you ready for a swim?

(Below) SAF Members tour Leland while vacationing in Traverse City. (Photos by Hagan.)

The 1984-85 school year saw the disappearance of the Forestry Club as it merged with the Society of American Foresters to form a stronger and more unified student forestry organization. As one group much duplication of effort was eliminated and many financial problems were alleviated. Over the course of the year SAF Student Chapter members attended State and UP Chapter meetings, heard speakers at student Chapter meetings, participated in several fundraisers, and enjoyed several other activities together.

Students were able to make valuable contacts and hear interesting presentations at several SAF meetings. Student representatives were in attendance at two Houghton-Keweenaw-Baraga Chapter meetings and assisted with registration at the fall and spring UP Chapter meetings. The student Chapter put a majority of its funds into sponsoring ten students in their trip to the spring Michigan State Chapter meeting held in Traverse City. The major topic of conversation was "Forestry Education in Michigan," and it is hoped that the students were able to provide some input and insight to the discussions.

Student Chapter meetings included presentations of all types: Ros Miller showed slides of Europe and some of the forestry practices used there; Dave Kinnery and Joe Kovach showed a movie about forestry and fisheries opportunities with the Peace Corps; The Wildlife Club joined us for the movie "Mad River" which provided us with some insight on controversial land use planning; The most popular speaker of the year was Ted Johnson of Elm River who discussed his sugarbush operation, the wood chunking process, his newly designed high efficiency furnace, and the Calumet steam heating project.

Many of the SAF activities were made possible by our successful fundraisers. The primary source of revenue was once again cutting and splitting wood to sell to the general public, but this time we did not fight the elm, we worked with sugar maple and yellow birch donated by the Mead Corporation. We also constructed some hiking trails at the Sturgeon River and Canyon Falls rest area. The SAF hosted a luncheon for the CIFIDC convention in October and once again sold hats, sweatshirts, mugs, and our new item, computer disks.
Being part of the Student Chapter was not all work and no play. In September we spent a day out at the Otter River Camp doing some general repairs and having a good time. Winter Carnival proved exciting this year as the Foresters bounced back from a dismal performance last year. Snow statue workers made the best of a bad situation when the main structure came tumbling down during construction and managed to come away with the third place snow statue in class 'C.' The snow statue combined with a fairly strong showing in special events for third place overall, class 'C.' Many members also enjoyed pick-up games of softball once the weather warmed up and the snow melted off of the fields.

Overall it was an excellent year for the Michigan Tech Student Chapter of the Society of American Foresters. A special thanks to all who participated and especially to the officers: Mark Wallach — Vice Chairman, Lisa Lee — Treasurer, and Ron Brown — Program Coordinator. Congratulations and good luck to next years' officers: Mark Wallach — Chairman, Joanne David — Vice Chairman, Jim Post — Treasurer, and Joe Foster — Program Coordinator.

Scott A. Gabriel
Chairman '84-85
Graduate Students Participate in Poster Session at the International Forest Congress

By Tim Bottenfield

Eight MTU forestry graduate students presented a poster display at the 1984 International Forest Congress in Quebec City, Canada. The Congress was a joint meeting of five forestry organizations in North America, one of which was the Society of American Foresters. The title of the presentation was "Applications of Microcomputers in Forestry at Michigan Technological University." Students representing the Forestry Department were; Charlie Becker, Tim Bottenfield, John Byrne, Paul Essinger, Les Fuller, Mic Holmes, Carrie Richards, and Kathy Teahan.

The poster session lasted two days, during which students were available for questioning from other conference attendees. The text of the poster included information about the University and the Forestry Department in general. The use of microcomputers in forestry was the main theme. Information on programming, word processing, spreadsheets, graphics, peripheral use, and a variety of software packages was provided. Demonstrations were also given by the students using the hardware and software displayed at the session.

In addition to the poster session, the group organized an alumni social hour. Approximately thirty-five persons attended the affair which boasted an elaborate spread of hors d’oeuvres and a bar complete with bartender. It was an excellent opportunity for many alumni to see old acquaintances and to make new ones too.

There was ample time to enjoy the surroundings of Quebec City, and the students definitely took advantage of it. Some of the highlights included an evening cruise on the St. Lawrence River, sightseeing in old Quebec and the wharf area, and shopping in many of the local stores and boutiques. Everyone had a wonderful time eating, as the restaurants and cafe’s were numerous and served excellent cuisine. The nightlife in the city had much to offer too. And it can be said that many of the nightly events will be remembered for a long time to come!
Wildlifers to Tri-Host the 1985-86 Conclave

The Michigan Tech Wildlife Society is a student chapter of the National Wildlife Society. Major functions of this past year were: a poster sale fundraiser, bird banding, a barred owl survey, and the 1984-85 Midwest Wildlife Conclave.

During the weekend of March 15, 1985, eight members of the Michigan Tech Chapter packed their bags and headed for Lincoln, Nebraska, the host of this year's conclave. The sunshine and 70° weather were a pleasant change from the snow-covered Houghton, and the weekend was non-stop. As Ron Brown would say, "It was MINT!!" Informative lectures and seminars were centered around current fisheries and wildlife research, while the nightlife was filled with good food, dancing, and a lot of B.S.'n with the students and faculty of other schools in attendance.

Next year Michigan Tech will be tri-hosting the conclave with the University of Michigan and Michigan State University at the Kellogg Biological Station near Battle Creek, Michigan. Great enthusiasm was shown between the three schools at preparation meetings held this spring. The stage is set for an exciting year.

Best of luck,
Shawn Hagan

Firewood Cut 1984

The SAF once again sold firewood to the dorms and to a few lucky instructors. While in the past years we have wrestled with elm down in Chassell, this year Irv somehow procured a truckload of Mead’s cull logs. They were unloaded into a formidable mountain behind the Forestry Building. It took us three days to buck, split, and deliver 11 cords of the gnarly stuff, but fired by a love for sore muscles and Irv’s tasty stew, we worked together, conquered the pile, and enjoyed ourselves in the process.

Determination. (Mark Wallach, Jon Drukenbrod, and Chad Radka by Goetz)

Jim Post takes command of the log splitter. (Jim, Mark, Shannon, and Gabe by Goetz)

"It’s easy, I just picture J.K.’s face and . . ." (Scott Gabriel by Nyhoff)
Otter River Camp Log

9/15/84 5:00 PM

Otter River Camp Wednesday. It was a sunny day, temperature in the high 70's with a light breeze. The first lesson we learned today was never to split wet elm. We have to compliment Ian for his patience.

Housekeeping. We opered headlights over the flat and enjoyed left over Bro-Yum. Lisa Lee enjoyed playing Robin Hood most of the afternoon. Lisa and Heather were the two best chain saw operators of the day.

Quote of the day, Mark Wallach, "Elm Sucks."

Next project -- develop a high lead system to begin extensive logging of the area across the river (or ... buy a seeder).

"Dis is a better Mousetrap" (Irv by Goetz)

"Lookout Mother Nature, times are tough." (Shannon Harrig by Goetz)

"Isn't this supposed to be straight?" (Joe Lannom by Nyhoff)

... Ros said that it works better this way ... (Mark Goetz by Nyhoff)
FORESTER STAFF

Looking for Advertisers — Sue Hart, Chris Tooley Co-Editors (Photo by Goetz)

Enthralled by the new TV monitor
Deb Glas — Salute, Layout, etc.

Steve Nyhoff — Artist

Mark Goetz — Chief Photographer

Kathy Teahan — Graduates
Greg Drogowski - Photographer

Our Technicians Connection.

(Left) Bill Eighmey A multitalented photographer. (Photo by Jody Parrish ... using Bill's camera of course).

(Below) Shawn Hagan and Lori Carpenter, Photographers.

(Bottom center) Irv Ziemer Advisor.

(Below) Irene Borak Down to business — Business manager (photo by Stanfield).

(Above) Charlie Becker — Photographer whenever we need pictures taken and nobody else is going to be around we can always count on Charlie. (Photo by Stanfield).

(Above) Shannon Harig — Photographer (Photo by Carpenter).
Freshman Technicians

L. to R.: Ron Ervast, Mike Streasick, Rick Tompson, Mark Lopicola, Dan Grossett.

Sophomore Technicians

L. to R.: Tony Furlich, Dave 'Jogger' Crouch, Lisa Lee, Nate Dehne, Andy Maricini, Heather Butler, Greg Drogowski
"Bah" — Andy Maracini

Wildman Andy shows true technician form, even with a hangover. (Red Pine Release)

Lisa Lee and Heather Butler — What a team! — "Lay back Jack!"

Jim Johnson explains Northern Hardwood Management to the sophomore technicians as Dave "The Jogger" Crouch hams it up for the camera.
It starts with the horror stories: Cruising in the dark, 36 hour days, and the 7-point scale which doesn’t budge for anybody. While the rest of the students in Houghton pack up to go home for the summer, the lucky foresters slap on the Muskol and head down to that little clearing next to U.S. 41 and anticipate their summer “vacation.”

This summer was unique in that it was the first time the technicians and the four-years worked together, partied together, and really got the chance to know one another. The staff was great, they taught us the arts of scaling and grading, compassing and pacing, and throwing chains. We dug numerous soil pits and learned all too many ground-cover plants. We helped each other through hours and hours of calculations, cheered the guys on over at Camp Baraga, and watched Magnum P.I. religiously every Thursday night.

Exposure to different forest industries kept us traveling all over the U.P., from Ontonagon to Amasa we toured pulp mills, sawmills, nurseries, swamps, clearcuts, and everything in between. We discovered how quickly we could take a nice, clean MTU van and cake the carpet with mud, and that hardhats were a necessity when Jim was driving the bus.

Little did we know that as our summer flew by we were the end of an era: “Summer Camp” turned to “Fall Camp” in 1985. Even though we missed our summer vacation I do not think you would ever hear a serious complaint from the students, only praise for a program well run.
A toast to Summer Camp!

(Above right) Joey and Rick take time out to look see what a beautiful place the Copper Country real

(Below left) During habitat typing and even while di pits in the rain Joni and Andy can always manage a

(Above) Tony, Andy, Greg, Nate, Heather, and Lisa the beautiful lawn in front of the dorm.
Lemming: an Alberta favorite

The Lemming In All of Us

resters so willingly follow past generations edge of the cliff and down 30' into the ver below? Granted, all of us crawl back with mud but grinning ear to ear. Why? It the blood of every true Alberta-crazed

Greg, Andy, Nate, and Jon in true form at ds beach practicing grading . . . uh . . .

ool, Joey, Chris, Greg, Nate, Scott, Jon, awn pose before taking the plunge.

Geronimo! . . . WHA ROCK?? . . . Chris Tooley chutes the Sturgeon.
The Alpha Eta chapter of Xi Sigma Pi, the forestry honors society at Michigan Technological University, sponsored their Annual symposium on May 2. The main topic this year was current research and research needs in the Great Lakes region.

Among the invited speakers were James Ferris, Champion International, Kingsford, Michigan and Ronald Woessner, Mead Corp., Escanaba, Michigan who discussed how decisions concerning research in private forest products companies were determined. They contrasted the applied problem solving kind of research frequently performed in the private sector to the more basic and theoretical research carried out by government agencies, educational and research institutions.

Invited speakers from government agencies in the U.S. and Canada included Gerald Rose, Michigan Department of Natural Resources, Lansing, Michigan, John Erickson, U.S. Forest Products Lab, Madison, Wisconsin, and Cayford, Canadian Forestry Service, Research Centre, Sault Ste. Marie, Ontario. They illustrated how research can be useful in developing new products and in helping the forest industry become more efficient and competitive. They described some of the research being carried out at the Great Lakes Research Centre and the cooperation between the Canadian Forestry Service and the U.S. Forest Service.
(Jack) Schultz, publisher and editor of Nalands Magazine, Traverse City, Michigan, emphasized the need for research that would help small owners manage their lands to supply a larger wood to the forest products industry.

Murphy, Cooperative State Research Service, D.C., completed the program by discussing the discrepancies between research priorities perceived by institutions and the research priorities as reflected in funding levels set in Washington. One point he stressed was that researchers in forestry find it difficult to compete for funds against those in medical and other sciences where the outcomes are not counted in dollars, but in lives saved.

Gary W. Lyon
Advisor, Xi Sigma Pi

Deb Glas and Sue Hart set out the coffee and donuts.

Social Hour.

Steve Albee mans the check-in table.
Sports

I.M. Teams and Varsity Athletes

Dave’s Team (Record)


Team Forestry (Record)


Hit it Kathy!! (Photo by Goetz).
The Dinks (Record)


Jump Charlie! (Photo by Goetz).

Cynthia Schilke, Varsity Basketball. (Photo by Carpenter).

(Below) Look out for the guy in the funny hat! (Photo by Goetz).


The Waterloggers Record: 1-4

The great Eastin setup. (Photo by Goetz).

Forest Products Research Society

The Forest Products Research Society is an international non-profit educational association that was founded in 1947 to aid in linking all sectors of the forest products industry, from the standing tree to the finished product. The Michigan Tech Chapter is part of the Upper Mississippi Valley section and was chartered in 1977. The F.P.R.S. sponsors seminars relating to the Forest Products industry, as well as sending members to various regional and national F.P.R.S. meetings. Anyone with an interest in the Forest Products Industry is welcome as a member.

Winter Carnival 1985
Classics Brought to Ice

What do a chainsaw, a beaver, a tree stump, a grade #1 butt log, and Smokey-the-bear have in common? We’re not sure either, but inspiration and near disaster made this year’s statue a lot of fun. The MTU Foresters showed the rest of campus what classics can be made from ice, disorganized beginnings, and last minute plans.

220 yd. skating champ: Tom Hill
3rd place statue
3rd place snowshoe
3rd place overall, Class "C"

Greg plays patty-cake with the ball.
(Photoby )

The final product. (Photoby )
Graduate Students: All Work and No Play?

Photos by Bob Richards

Paul and "Fred" (?) take Kathy Teahan for a spin.

Calm, cool and collected, Kathy takes a slide off the cabin.

Entranced by the Otter River.

Kathy — what are you doing? Is that a new type of marking gun? (Photo by Becker).
The Foresters Choir (Photo by Becker).

You're not scared are you Carrie?

What form! What grace! Kathy holds on for dear life.

Antlerwarmers.

How far did you say this was? Bob Hoffman takes his turn.

Carrie shows off her pearly whites.
Silviculture Lab #3: Stem Analysis

With the popularity of the IBM-PC's in the department comes their practical use and application. Silviculture Lab was no exception, but Deb, Mary, and I had a few problems. We did our best at explaining our results:

Figure 1: the trees up in the U.P. are very talented. We cannot, however, figure out how to relate the growth pattern to the management objectives Glenn told us about.

Figure 2: Hey Deb--Maybe we numbered the cookies wrong?

Figure 3: This time it drew both the tree and the hill!

Editors note: Results were not really this disastrous, but you should have seen Les' face when he saw these graphs!
Our Thanks

The '85 Staff extends its sincere appreciation to the MTU Forestry Alumni listed below who contributed almost $1,500 towards the publication of the Forester. Your contributions are becoming increasingly important as it is very difficult to sell advertising space. Please continue your support.

Aho, Bill
Aho, Charles
Anderson, David
Anderson, Joseph
Ault, Stacey
Baer, W. John
Baker, Peter
Becia, Enzo
Bock, John
Bolett, Jack
Borak, Robert
Brisson, Bob
Buerkholdt, Judy
Calabro, Joseph
Carlín, William
Chase, Ralph
Chick, Timothy
Church, Ronald
Ckär, Walter
Crandall, James
Cundy, Cy
Dumroese, Kas and Deb
Ebeling, Rob
Fitzpatrick, Vernon
Foss, Tim
Frank, Leonard
Frankenstein, G.
Gahl, Tim
Gale, Chris and Peggy
Gates, William
Giebner, Richard
Gillette, Marc
Godell, Lloyd
Gottwald, Paul
Graboske, Keith
Greenlee, Jack
Hannula, Oliver
Hansen, Lori
Harju, Robert
Hauge, Christy
Heikkila, Warren
Hernon, William
Hornick, John
Hoxie, James
Johnson, Brian
Johnson, Jim
Kirschbaum, Jim
Kober, Dave
Koehler, John
Kressbach, John
LaBumbard, Kevin
Lamb, Dennis
Lambrecht, E. Gene
Lathrop, Kenneth
Lindberg, Rich
Liston, Laura
Lorenzen, Jim
Marita, Butch
Mazany, Donald
McDuffie, Michael
Montambo, Keith
Moore, J. Terry
Mullenbrock, Craig
Nelson, Rodney
Nicolson, John
Noblet, John
Norkoll, Raymond
Nygren, Tom
O’Donnell, W.A.
Ohrogge, Liz
Omernik, Donald
Ouellette, Gary
Piehl, Thomas
Plourde, A. Earl
Pote, Robert
Prochaska, Annette
Puuri, Carl
Quilliam, Ronald
Raisanen, Robert
Reid, Leslie
Riley-Hall, Cathy
Robinson, Edgar
Rollman, C. W.
Schab, Lorin
Schabel, George
St. Onge, Ray
St. Onge, Willard
Steinhilb, H. M.
Still, Jeffory
Stone, Dennis
Swensen, Edmond
Therrien, Alice
Thompson, W. J.
Trettin, Carl
Trombley, Gordon
Tyler, William
Uttke, Susan
VanWagner, Thomas
Vander Heide, Tony
Veeser, Bill
Vine, Linda
Vollrath, Gary
Vyain, David
Wagner, David
Wagner, Robert
Wagoner, Harry
Waal, Bruce
Walsh, J. T.
ADVERTISERS

Photo by Eighmey
Congratulations from FABCO Equipment Inc

FABCO, your local Caterpillar dealer, provides Upper Michigan and Wisconsin with equipment, parts, and service for all logging and lumber mill applications.

We’re a service-oriented company, and we’re committed to the forestry industry.

FABCO EQUIPMENT INC
6 Miles West Highway 41
P.O. Box 638
MARQUETTE, MI 49855
(906) 475-4191

MILWAUKEE
414-461-9100

MADISON
608-271-6200

GREEN BAY
414-499-0611

EAU CLAIRE
715-832-6647

SUPERIOR
715-394-2774

WAUSAU
715-359-6220

Caterpillar, Cat and ™ are Trademarks of Caterpillar Tractor Co.

LAND and FORESTRY SERVICES:
REALTOR
REGISTERED LAND SURVEYOR
REGISTERED FORESTER

CHARLES E. HEIN
REAL ESTATE, TIMBER AND LAND APPRAISALS,
INVENTORY, MANAGEMENT AND MARKETING

140 CALUMET AVENUE
CALUMET, MICHIGAN 49913
AREA CODE 906/337-3352

Compliments of
QUINCY MINING COMPANY

Louis G. Koepel
Superintendent Michigan Operations
Royce Rd. Ripley
Hancock, Michigan 49930

Graduate of Ranger School? (Photo by Goetz)

Bill Eighmey goes buggy (Photo by Carpenter)
the spot seen 'round the world
NEL-SPOT
WORLD LEADER IN FORESTRY MARKING PAINTS AND MARKING EQUIPMENT
NELSON PAINT COMPANY
Iron Mountain, Michigan
Three plants: Montgomery, Alabama
McMinnville, Oregon

Robinson's Furniture
MANUFACTURING, INC.
Wilson, Michigan 49896

Congratulations M.T.U. Graduates

Champion
Champion International Corporation

We Own and Manage Over 400,000 Acres of Land in Northern Wisconsin and the Upper Peninsula of Michigan

Lake States Operation Headquarters at Norway, MI

Michigan District Office Locations
Gaylord       Ontonagon
Champion      Wakefield
Newberry      Iron River
Some forestry basics cannot be bought.

The basics you'll use in your forestry career cannot be bought. They were given to you: your hands, your eyes, your mind.

You develop these basics through education and experience. And you supplement them with man-made tools.

That's where Forestry Suppliers, Inc. fits in. The tools we sell make it easier for you to develop the basics you were given.

Team up your basics with our tools for your success.

Forestry Suppliers, Inc.
205 West Rankin Street
Post Office Box 8397 - Jackson, Mississippi 36204
1-601-354-3565

"Up in the air Junior Birdman, up in the air — don't fall down" Denny Baril picking apples (photo by Borak)

Houghton National Bank

The MTU Campus Bank
With 24-Hour Teller Machine Service

Houghton National Bank
Houghton, Michigan

member F.D.I.C.
Congratulations to the Graduate Foresters!

Everything for the forester...

THE FASTEST GUN IN THE WOODS
(And The Most Affordable)

TRECORDER™ spot gun
A must for the forester, logger, lumberman — anyone involved in tree marking operations!

- Marking inks won't clog nozzle
- Durable corrosion-resistant brass barrel
- Shatter-proof easy grip polyethylene construction
- Fast, easy "4-finger" trigger action; one squeeze and you've made your mark

For a brighter, longer lasting mark, use TRECORDER Tree Marking Inks. Call or write for free sample.

Forestry Products Division

American Coding and Marking Ink Co.
1220 North Avenue, Plainfield, NJ 07062, (201) 756-0373
Life in the forest is a growing process.

Proper management of our country's forests provides future generations with valuable timber products, employment, recreation and space to enjoy life.

Consolidated
CONSOLIDATED PAPERS, INC.
WISCONSIN RAPIDS, WISCONSIN 54494

With Over 300,000 Acres of Multiple-Use Forestland in the United States.

OSMOSE
UTILITIES DIVISION

SERVING THE UTILITIES INDUSTRY FOR OVER 40 YEARS THROUGH INSPECTION AND PRESERVATION OF WOOD PRODUCTS. CHALLENGING POSITIONS AVAILABLE FOR THE FORESTER LOOKING FOR:

- GROWTH
- RESPONSIBILITY
- INCENTIVES
- BENEFITS

OSMOSE WOOD PRESERVING CO. OF AMERICA, INC.
980 ELLICOTT STREET, BUFFALO, NEW YORK 14209

Society of American Foresters
Woody Guthrie's song celebrated the glories of the land and told about how it was "made for you and me." He knew the land better than most of us because he walked it from one end to the other...looking for work when poor land management turned his home in the Southwest into a wasteland called the Dust Bowl.

At Nekoosa Papers we know one sure way to avoid the tragic waste of land: to manage the land and its resources intelligently. Our prosperity comes from the land, and we recognize our obligation to use what the land gives us in a way that will benefit all of us for decades and centuries to come.

It's smart business...for us and for our neighbors, too.

WE LIKE IT HERE.

Nekoosa Papers Inc.
a company of
Great Northern Nekoosa Corporation

Look Up 'N' Look Out

When working near electric wires, be aware of their location before you cut a tree or move a piece of equipment. Because once you make contact with an electric wire, there may be no cure! And, before you dig, call Miss Dig:

1-800-482-7171

UPPER PENINSULA POWER COMPANY

KEENEENAW MOUNTAINEERING SHOP
Quality Outdoor Equipment Since 1974

The squirrels go bowling. (Photo by Goetz)
Oven Art — UP'er Style

(Photo by Eighmey)

Best Wishes

KEWEENAW LAND ASSOCIATION,
LIMITED

Growing Timber for Michigan's Future

Ironwood
— Michigan —
Crystal Falls
Connor Forest Industries

POST OFFICE BOX 847 • WAUSAU, WISCONSIN 54401
(715) 842-0511

MANUFACTURER OF QUALITY HARDWOOD
LUMBER AND HARD MAPLE FLOORING

LUMBER PRODUCTION 32 MILLION BOARD
FEET YEARLY

PLANTS IN WAKEFIELD, BARAGA, AND
NEWBERRY MICHIGAN AND LAONA,
WISCONSIN

Hard at work in Municipal Lab (Photo by Borak)

E. R. Lauren University Bookstore

"A BOOKSTORE AND A WHOLE LOT MORE"

A Complete Line of
Drafting Equipment
Backpacks
Hard Hats
Compasses

and many other supplies for Foresters and
Land Surveyors

Located in the
Michigan Tech
Memorial Union

"An Equal Opportunity Employer"
Summer Camp 1984 —
Remember . . .

... Only Houdini can use the overhead projectors . . .
... gone fishin', . . .
... no pets in the dorm ... Rick . . .
... chains are trained to ten links, right Irv?

... No mail, no 'phone, no sauna . . . We may as well be at Camp Baraga . . .

... Foresters do not like to divide, they'd rather multiply . . .
... don't bother with those damn strawberry plants. Only John Kotar cares about them . . .

... What is a thump line?
... John Kotar takes his time . . .
... BAH! . . .

"With enough trees, we'll all breathe a little easier."

"Trees, like other green plants, help purify the air we all breathe, by replacing carbon dioxide with oxygen.
"And with all the smoke, the exhaust, and the fumes in the air today, we need all the help we can get.
"The point is—we need our forests like never before. And we need to manage them wisely.
"Our job is growing. Help us all breathe a little easier. Write for information on what you can do."

Society of American Foresters
5400 Grosvenor Lane
Bethesda, MD 20814
"Time Out!!"  
(Photograph by Goetz)

1986 MICHIGAN TECH FORESTER ORDER FORM

Please help us defray the cost of publication of the Forester and Alumni Register by returning this form with your contribution. Make checks payable to the Michigan Tech Fund (your donation is tax deductible and Michigan residents can receive state tax credit).

NAME ____________________ CLASS OF: ____________________

ADDRESS __________________________________________

News and Interest: ____________________

Return to: Michigan Tech Forester

School of Forestry and Wood Products
Michigan Tech University
Houghton, MI 49931