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Michigan Tech "Forester"
News of the Department of Forestry

Continued rapid increase in student enrollment in forestry has highlighted the past school year. Enrollment in the fall quarter of 1971 totaled 456 students, as compared to 360 students the previous year. New student enrollment totaled 198 last fall, an increase of more than 30 per cent over the 1970 figure.

The continued rise in forestry enrollment at Michigan Tech contrasts sharply with the general level of enrollment at the University, which has remained nearly constant at about 5,000 for several years. Various opinions have been expressed regarding the basis for this growth in forestry enrollment at MTU. Probably many factors are involved, including: The current wave of concern over environmental degradation; threatened deficiencies of natural resources and the need for better resource management; the fall from grace, in the minds of many, of the symbols of modern technology: basic science and engineering; the desire by many students and their parents to avoid the troubled environment of large cities and large universities, and (particularly relevant to MTU) the fine facilities now provided for education in forestry and related fields, and the strong accreditation ratings of the University and the Forestry Department.

Whatever the reasons, student enrollment has burgeoned and, from all indications, will register another significant rise in the fall of 1972.

There have been no personnel changes in the Forestry Department faculty this year. It is expected that two newly authorized faculty positions will be filled in September.

Dr. Hereford Garland, director of the Institute of Wood Research since its establishment at MTU in 1947, retired from this position in December, 1971. He continues as a member of the Institute staff, devoting full time to research. Under his directorship, the IWR has grown to a professional staff of six and has acquired a modern research facility which forms part of the Forestry-IWR Building. Constantly stressing close contact with forestry industry, Dr. Garland enhanced the identity of his unit as a consulting and problem-solving organization, always available to assist the wood-using industry in Michigan.

Professor Carl W. Danielson currently is serving as administrative assistant of the IWR, pending appointment of a new director.

Two members of the Forestry Department faculty received Ph.D. degrees during the past academic year. Professor Richard Crowther received his Ph.D. in Forest Recreation at the University of Michigan, Ann Arbor, at the December, 1971, Commencement. Dr. Crowther teaches a variety of courses relating to recreational land management. For his dissertation research, he conducted a study of recreational policies and programs of forest land-owning industries in the Lake States. He has been a member of the forestry faculty since 1956.

Professor Roswell K. Miller, forest management economist in the Forestry Department, received the Ph.D. Degree for the University of Michigan at the Spring Commencement, 1972. His doctoral dissertation consisted of a study of logging operators in the Upper Peninsula of Michigan, designed to contrast the qualities and characteristics of successful operators and enterprises with those which were not financially successful. Dr. Miller joined the forestry faculty at Michigan Tech in 1965.

A symposium on the question of clearcutting northern hardwood forests, reported elsewhere in this issue, was a major event of the year. Sponsored by Michigan Tech's new chapter of Xi Sigma Pi, national forestry honorary fraternity, the symposium attracted about 200 persons, including many from Wisconsin and throughout the Upper Peninsula, as well as members of the Michigan Tech faculty and student body. The fraternity earned high praise for its organization and handling of the symposium.

Other special events on the calendar included appearances by George W. Fry, associate regional director of the National Park Service, Atlanta, Georgia, and Charles Connaughton, president of the American Forestry Association and recently retired regional forester of the Pacific Northwest region, U.S. Forest Service. Mr. Connaughton appeared under the sponsorship of the Visiting Scientist Program, supported by the National Science Foundation and the Society of American Foresters.

—C. R. Crowther
Foreword

The close of a book and the end of a year are always occasions for some amount of sorrow. However, those who realize that the end of one event merely means the beginning of another will not be left without some joy. As each of us, in turn, goes through life, we will constantly discover new horizons occurring day by day that will guide us. It is the hope of the staff of the "Forester" that the memories we have recorded herein will aid each of our peers to select the path best suited to him.

—Walt Summers, editor

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The "Forester" Salutes:

Dr. Norman F. Sloan

A forestry education at Michigan Tech involves plenty of hard work, yes; but it also can include many good times in extra-curricular activities sponsored by the Forestry Club. Much of the success enjoyed by the Forestry Club in its program of activities during recent years can be traced to the influence of one person—Dr. Norman F. Sloan, associate professor of forestry.

The Forester's Salute this year goes to Dr. Sloan, in recognition of the substantial contribution he has made to the educational, social and recreational opportunities open to forestry students at Michigan Tech. A Tech Forester himself, class of 1957, Norm adds a major dimension to the extra-curricular program, as well as the academic stature, of the Department and the Forestry Club.

Since joining the Tech faculty in 1965, he has given steady support to the Forestry Club and other student affairs. Many accomplishments of the Club were attained through his guidance, leadership and continuing enthusiasm. Some of these accomplishments were the construction of a sauna and other improvements at the Club's Otter River Camp, and success of the annual Forestry Booyaw, for which Norm has served as chief organizer, head chef and guiding spirit since 1965.

Norm's contributions in the realm of food services are not confined to the Booyaw. On many occasions he has used his culinary talents in preparing meals during club outings at the Otter River Camp. In addition, many a student has enjoyed the products of his efforts in the kitchen at his home near Chassell.

Having been an active Forestry Club member in his undergraduate days, Norm accepted the responsibility of Club Advisor shortly after joining the Tech faculty. Only recently did he relinquish this post in favor of the current advisor, Dr. Martin Jurgensen. However, his support of student activities continues unabated, to the benefit of all club members.

Dr. Sloan hails from Hillsdale, Michigan, where he graduated from high school in 1953. During this time, he developed a major interest in music, playing in both the high school band and orchestra, and in the Hillsdale Community Orchestra. He also won a scholarship to the National Music Camp at Interlochen, Michigan. At his graduation from high school, he received the Turner Cup, an award presented to the outstanding student in the graduating class.

In addition to music, Norm nurtured the hobbies of bird watching and cultivating flowers, shrubs and trees. These interests, which continue today, prompted him to pursue his college education in Forestry at Michigan Tech.

After receiving his Forestry degree, he accepted a position with the Bureau of Land Management in Oregon. There he gained experience in the management of Douglas fir forests which grow on the slopes of the Cascade Mountains.

In 1959, Norm returned to the Midwest, taking a position with the U. S. Fish and Wildlife Service in Minneapolis, Minn. In this employment, he traveled through North and South Dakota, and western Minnesota, appraising lands needed for the wetland conservation program and for public water access. In connection with this assignment, he was given the opportunity to attend a short course at the University of Wisconsin, Madison. While there, he received and accepted an invitation to undertake graduate study.

At the University of Wisconsin, he concentrated on the study of forest entomology and wildlife. He received the M.S. Degree in 1963 and the Ph.D. Degree in 1965.

Dr. Sloan ended his long holdout in bachelorhood when he married Martha DeArmond in March, 1969. Norm, Martha and daughter Betsy reside in a house which Norm built himself (with some talented assistance from Forestry students) near Chassell. Rounding out the "family" are two pets, a Labrador retriever named Blacky, and Lucie, a cocker spaniel. Norm enjoys indulging in gardening talents in a greenhouse which he has built near his house, and more recently has added a sauna and taxidermy shop.

The welcome mat is always out for students, and it is an unusual day when one or more Techmen are not enjoying the Sloan brand of hospitality.

As if family life, undergraduate teaching, horticulture, bird watching and banding, and helping with student activities were not enough, Dr. Sloan also conducts graduate teaching and research. He is also editor of the Inland Bird Banding News, a bi-monthly publication.

These qualities of leadership, enthusiasm, professional ability and interest in his students prompt this Salute to an eminent Tech Forester and professor, Dr. Norman F. Sloan.
Martha Sloan

Norm, when he had hair!

Norm and daughter Betsy

Blacky

... at graduation.

Norman F. Sloan

Norm, when he had hair!
Report
From the Dean

The interest of young men and women in studying Forestry at Michigan Tech continues. Prospective new student statistics indicate that an enrollment approaching or exceeding 600 students will occur in the Fall Term of 1972, nearly 50 of whom will be co-eds.

Two new faculty members will also be on hand this Fall to help handle the increasing number of students. A new option in Conservation will be available to the latter in addition to the eleven options currently listed in the University catalog. So will interdisciplinary undergraduate studies in Forest Engineering be added, to complement graduate studies already taking advantage of the fact that Tech has a strong School of Engineering. Forest Engineering will feature two options, one with a Mechanical Engineering orientation and the other oriented toward Civil Engineering.

Because of the doubling of Forestry Summer School enrollment, it has been necessary to run two sessions simultaneously which are mirror images of each other. Further streamlining of laboratory sections to maintain quality while increasing efficiency has been a necessary and desirable consequence of Forestry growth.

Two new awards have been established. One recognizes class competition and participation in extracurricular activities, including intramural athletics. This award is dedicated to Professor Emeritus U. J. Noblet, who was the founder and head of the Department of Forestry for more than twenty years. The second annually honors two Seniors who excelled in scholarship, leadership, and citizenship during undergraduate years. Selection of recipients, whose names are inscribed on a plaque, is made by a committee consisting of three members of the Junior class and three members of the faculty.

At the Ford Forestry Center, an equally forward-looking outlook continues. Facilities have again been expanded by the construction of a Student Service Building adequate to provide 150 students with a modern building housing showers, washrooms and toilets—in fact, even including a sauna. This building represents realization of the first phase of plans to provide thoroughly modern dormitory facilities for the Forest Technician students, who now receive all of their instruction at the Center. Equally well served are the students of special education programs—48 diesel mechanics, 20 saw filers, and 20 sawmill sawyers who currently are, or shortly will be, receiving instruction under E.D.A. grants from the Federal Government. The diesel mechanics are moving into a new lab in the Center's recently completed General Purpose Building, where they will be able to make use of training aids provided for them by the White Pine Copper Company.

Research at the Center has been expanded to cover revegetation of copper tailings at the Keweenaw Peninsula. Establishment of vegetation on iron tailings, also financed under industrial contracts, has been gratifyingly successful.

This spring the Center hosted an international group concerned with the revegetation of mining wastes. Research on soil-site relations, on forest fertilization, and on computer application to forest inventory control also continues under both private and public funding.

Utilization of the tops of hardwood trees was the result of cooperation by three industrial concerns with the Center. One of them was a large timber-owner, the second a machinery manufacturer, and the third a paper-maker. 200 tons of chips were successfully utilized in 9-point paper. The chips were produced from hardwood tops which usually are left in the woods following the selective logging of northern hardwood stands.

The Institute of Wood Research, the third Department comprising the School of Forestry and Wood Products, is beginning to implement its new orientation toward reconstituted wood. One aspect of its work is concerned with structural particleboard; another with molded products of wood chips. Both of the above recognize the huge surplus of wood fiber available in the Upper Peninsula particularly. The donation of a large research press system by Elmendorf Research Incorporated, of Palo Alto, California, will materially aid the Institute in its work.

The advances made by the School of Forestry and Wood Products would not be possible, of course, without the forward-looking attitude of its professional staff and the quality of its students.

DR. ERIC BOURDO, JR., DEAN
School of Forestry and Wood Products
Long ago our forefathers resolved that there shall be no compromise with ignorance. Education for all is one of the marks of America, and it is one of the elements that has been responsible for such strong world-wide economic gains. To be well educated is a real benefit, but all too often it is a value seldom appreciated.

There are certain distinct responsibilities related to being educated. This may be an over-simplification, but it seems more and more that the viability of our society hinges largely on the civic and moral nature of the educated. There ARE certain responsibilities to being educated and each forester must assume these responsibilities as a part of the package.

It has been said that knowledge is power. Those who are educated are directly responsible for the wise use of their position. Those with a fine education are responsible for contributing a certain amount of their time and talent by providing social- and civic-leadership. Each of the educated has the responsibility to use his or her human talent in a manner that will benefit all of society. In this way your education can better serve all the people. There are all sorts of ways to help others—help in the Scouts, Village Council, Township Board, Sunday School—the list never ends.

One of the responsibilities of the educated is to be motivated. An education is secured only by intensive motivation, by aggressive activity and the development of an orderly progress. It seems in order, then, that educated people need to continue this activity by securing meaningful experience in addition to their continuing broadened learning. Through independent study, through intensive reading, through vigorous application of new and novel ideas—these are the ways the educated man can best contribute to improving the lot of his fellowmen.

Those of us with a good education are, indeed, the fortunate ones. But we must understand the nature of our responsibilities so we may contribute more to the growth and development of our society. If we fail to this end, the value of our learning is easily washed away. In this book, "The History of Science and the New Humanities," George Sarton wrote, "The better and deeper a man's knowledge, the higher his humanistic possibilities, the higher also his humanistic responsibilities. If it turns out that in spite of his learning he is after all but an uneducated and graceless man, so much the worse for him, so much the worse for his learning."
Robert L. Sajdak
Assistant Professor
B.S. Michigan Tech Univ.
M.S. Univ. of Minnesota

Dr. Eric A. Bourdo, Jr.
Dean
School of Forestry
and Wood Products

Faculty

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

Dr. Gene A. Hesterberg
Professor and Head
B.S. Purdue Univ.
M.S. Univ. of Michigan
Ph.D. Univ. of Michigan
DR. BERNARD C. H. SUN
Assistant Professor
B.S. Taiwan Univ.
M.S. Univ. of British Columbia
Ph.D. Univ. of British Columbia

DR. MARTIN F. JURGENSEN
Assistant Professor
B.S. Syracuse Univ.
M.S. Syracuse Univ.
Ph.D. North Carolina State Univ.

VERNON W. JOHNSON
Professor
B.S. Syracuse Univ.
M.S. Syracuse Univ.

DR. ROSWELL K. MILLER
Assistant Professor
B.S. Syracuse Univ.
M.F. Syracuse Univ.
Ph.D. Univ. of Michigan

DR. NORMAN F. SLOAN
Associate Professor
B.S. Michigan Tech Univ.
M.S. Univ. of Wisconsin
Ph.D. Univ. of Wisconsin
H. M. STEINHILB
Professor
B.S. Michigan Tech Univ.
M.S. Michigan State Univ.

DR. MICHAEL S. COFFMAN
Assistant Professor
B.S. Northern Arizona Univ.
M.S. Northern Arizona Univ.
Ph.D. Univ. of Idaho

LUANA C. KORPELA
Department Secretary

GAYLENE RAS
Department Secretary

Ray Tuomi, Jake Wakeham, Harold Johnson
The graduate program in forestry at MTU, begun in the summer of 1967, has grown from six students to the present fifteen. How many other areas in the school have more than doubled in that amount of time?

The present students are working on such diverse projects as the nesting habits of ravens, methods of revegetating the Torch Lake stamp sands, interpretation as a cure for vandalism in recreational areas, the impact of increased human use of the Estivant Pine tract, use of articulated frame rubber tire skidders throughout the U. S., and the relationship of northern hardwoods to soil and land form. Five of the graduate students are in the field of management, three in silvics, two in recreation and one each in pulp and paper, wildlife management, entomology, soils and ornithology.

The three students who will graduate by summer 1972 are doing research work on stocking of Jack Pine in northern Ontario, use of logging residues in northern hardwoods and construction of a tariff table for Aspen. Four more men will graduate by the end of the year and another four will be finished in March of 1973.

In addition to their own studies and research work, five of these students are teaching assistants; helping to relieve the work load on our professors and five are graduate research assistants. All this is valuable experience for the future.

The whole picture, I think, represents growth, achievement and a bright future for a young program.

—Charles Scheffner
PHILLIP F. ANDERSON  
Amberg, Wisconsin  
Xi Sigma Pi, Phi Kappa Phi

PAUL E. BLETTNER  
Glen Ellyn, Illinois  
Illinois State Honor Scholarship,  
Xi Sigma Pi, I.M. Hockey,  
Softball, Wrestling, Skiing,  
Forestry Club

GERALD E. ANDERSON  
Ashland, Wisconsin  
International Campus Crusade for Christ  
Forestry Club

LINDA BLUM  
Portage, Michigan  
Forestry Club

JOHN V. BRUNING  
Atlantic Mine, Michigan
JAMES F. BURKLAND
Faithorn, Michigan
Xi Sigma Pi, I.M. Basketball

RANDALL R. COLEMAN
Ramsay, Michigan
Forestry Club, I.M. Table Tennis, Horseshoes

WILLIAM H. DENNISON
Roscommon, Michigan
Phi Kappa Phi, I.M. Hockey

JOHN D. DEPUYDT
Painesdale, Michigan
Forestry Club, I.M. Hockey, Softball, Rifle Raffle

THOMAS R. DUVENACK
LaSalle, Michigan
Forestry Club, Photography Club, Forestry Dept. Photographer

JOHN G. FILIOS
Bedford, Massachusetts
Delta Sigma Phi, AFROTC, I.M. Hockey, Baseball, Football, Softball, Swimming, Bowling
DAVID A. HARLEY  
Lake Geneva, Wisconsin  
Tau Kappa Epsilon, Student Council, Junior Class President, I.M. Hockey, Volleyball, Tennis, Michigan Tech Student Award  

JOHN G. HIEPAS  
Shawano, Wisconsin  
I.M. Basketball, Volleyball, Football, University Student Award  

FORREST E. FRAZIER  
Springfield, Ohio  

ERIC C. FRIMODIG  
Marquette, Michigan  
Forestry Club, Winter Carnival, Ski Raffle  

RICHARD J. HERBIG  
Houghton, Michigan  
Cycle Club, Forestry Club, Ski Raffle, I.M. Hockey  

CHARLES R. HERSHBERGER  
Coopersville, Michigan  
Army ROTC, MTU Jazz Band, Concert Band, Forestry Club, Pres. and Treas. of Mu Beta Psi
ROGER G. HOEKSEMA
Holland, Michigan
Xi Sigma Pi, Intervarsity Christian Fellowship

JAMES W. HOHNBERGER
Appleton, Wisconsin
J.M. Skiing, Handball

ROBERT W. JACOBS
Highland Park, Illinois
Forestry Club

MICHAEL T. KENNEDY
Mossville, Illinois
Forestry Club, Superior Seals Diving Club

CHRISTINA S. KIONKA
Troy, Michigan
Xi Sigma Pi, S.A.F., Forestry Club Secretary, Conclave, Forester Yearbook

THOMAS C. KOPLITZ
Oshkosh, Wisconsin
S.A.F., Snow Statue
ROBERT E. LEFEVRE
Wauwatosa, Wisconsin
Xi Sigma Pi, Forestry Club, Intervarsity Christian Fellowship, MTU Band

DENNIS A. LEITH
Rhinelander, Wisconsin
Forestry Club, S.A.F., Varsity Track, I.M. Basketball, Softball, Football

WAYNE H. KOSKI
Ontonagon, Michigan
Forestry Club, I.M. Bowling, Basketball

JULIA L. KUCAB
Munger, Michigan
Forestry Club, S.A.F.

RONALD B. MORASKA
Vulcan, Michigan
S.A.F., I.M. Baseball

ROBERT C. MUSSMAN, JR.
Westfield, New Jersey
Forestry Club, Glee Club, I.M. Softball, Football, Volleyball
ROGER D. NANNEY  
Royal Oak, Michigan  
Xi Sigma Pi, Forestry Club,  
Weightlifting Club  

JOHN L. NEILIO  
Menominee, Michigan  
Forestry Club, I.M. Hockey,  
Baseball  

DALE E. PIERCE  
Concord, Michigan  
Forestry Club, Student Teacher,  
I.M. Archery  

THOMAS C. QUAIL  
Bloomfield Hills, Michigan  
Forestry Club, I.M. Softball,  
Volleyball, Hockey,  
Buck Shoot  

ROBERT W. RAADE  
Calumet, Michigan  
Forestry Club, I.M. Hockey,  
Xi Sigma Phi, Phi Kappa Phi  

TERRANCE A. REEDY  
Dousman, Wisconsin  
Forestry Club Vice-President,  
Ski Raffle, I.M. Basketball,  
Softball, Bowling, Volleyball,  
Otter River Camp Committee
MICHAEL A. SOHNS
Eau Claire, Wisconsin
S.A.M.E., ROTC, I.M. Basketball, Bowling, MTU Band, Jazz Band

GORDON J. STOOR
Jacksonville, North Carolina
Chess Club, I.M. Hockey, Xi Sigma Pi

ALLEN A. SAARI
Sault Ste. Marie, Michigan
Army ROTC, ROTC Rifle Team, Forestry Club

TERRY J. SIMONSON
Hancock, Michigan
I.M. Hockey, Softball

MARK R. STREHLOW
Brookfield, Wisconsin

WALTER P. SUMMERS
Downers Grove, Illinois
S.A.F., Xi Sigma Pi President, Phi Kappa Phi, Conclave, Forestry Club Council, Pictorial Editor, Forester Editor, Board of Student Publications, Placement Bureau
DANIEL R. SUTPHEN  
Jamestown, New York  
Forestry Club, I.M. Basketball, Hockey

DAVID F. SZYKOWNY  
Toledo, Ohio  
Forestry Club, Xi Sigma Pi, I.M. Hockey, Softball, Conclave

DONALD W. TRACY  
Kalkaska, Michigan  
Xi Sigma Pi, S.A.F., Forestry Club, I.M. Hockey, Mich.-Wisc. Timber Producers Association Award

STEVEN J. VAN BUREN  
L'Anse, Michigan  
Xi Sigma Pi, Phi Kappa Phi, MTU Board of Control Scholarship, I.M. Baseball, Paddleball

JOHN F. WALDRON  
Grand Rapids, Michigan  
Delta Sigma Phi Vice-President, Xi Sigma Pi, Blue Key Treasurer, I.M. Basketball, Track, Hockey, Forestry Club, Forester

DAVID E. WELLMAN  
Boyne City, Michigan  
Forestry Club, Dean's Student Advisory Council, I.M. Hockey, Softball
DANIEL G. WILCOX  
Wautoma, Wisconsin  
Xi Sigma Pi, Forestry Club,  
Lutheran Collegians, Treasurer

MICHAEL J. YAMBOR  
Detroit, Michigan  
Forestry Club, I.M. Bowling,  
Paddleball

ROBERT A. CANAVERA  
Norway, Michigan  
Xi Sigma Pi,  
I.M. Hockey, Football

Not Pictured:  
GLENN M. COMFORT  
ROBERT J. CONLEY  
DAVID H. GOTHARD  
FREDERIC C. HENDRICKSON  
TAREN E. HOLLISTER  
WAYNE E. HUGHES  
ALAN J. MALAVOLTI  
CHERYL A. MILLER  
JAMES A. MUNRO  
WILLIAM E. NICHOLS, JR.  
CARL J. NORDIN  
BYRON R. SAILOR  
DAVID L. SELLARS  
RICHARD D. SHEPLEY  
LAWRENCE STAAB  
ROLLIN THOREN  
ROBERT J. WASIELEWSKI  
JAMES WOUDEMBERG  
T. ZIELINSKI

"Class of 1972"
Forest Technician Program

This year's is the third graduating class of Forest Technicians at Michigan Tech. There are 27 students graduating, making the class of '72 the largest since the program started. This year the entire Forest Tech Program was moved to the Ford Forestry Center at Alberta.

This year also saw the formation of the Forest Technician Branch of the MTU Forestry Club. The branch officers were Phil McCarthy, president; Donald Beihart, vice president and Gary Pisoni, secretary-treasurer.

In January the Forest Techs gathered their forces to build a snow statue for the Michigan Tech Winter Carnival. The statue was a replica of the Mackinac Bridge, but did not meet in the center. The theme was "Trouble over Bridged Waters." The statue was completed on time, however plans were submitted too late in order to be judged.

The class of '72 was unable, in two years, to win the "Brown Jug" award given to the winner of the annual snowshoe softball game. The winter of 1971 saw defeat for the class by a score of 2-1 due to inexperience on snowshoes and very low temperatures. This year the class lost again by a score of 2-0. Although the weather was a bit better, frozen fingers and legs still prevailed. Broken snowshoes resulted in some unforeseen substitutions for the freshmen that may have allowed their victory. The game was highlighted by many snowdive catches and much stumbling on the base lines. The frosh pitcher Phil McCarthy nearly threw the game away in the sixth inning when he swallowed his "chaw" on a close play.

—Mike Tymrak
On March 20, 1855 the French Copper Mining Company of Lake Superior purchased a tract of land near Copper Harbor. Many improvements were made on the property by M. J. Borie, superintendent of the mine, and a crew of French workers. Shafts were started, buildings erected, and a road from Copper Harbor to the Clark Mine completed by the summer of 1858. In 1859, Ferdinand Bartholomey replaced Borie as superintendent of the mine. Bartholomey came "to dig for copper," which he did in a new vein which had just been discovered. Due to the vast expenditures made in its attempt to find profitable copper deposits, the French Mining Company went bankrupt after only two years, allowing the purchase of the land by the Estivant Brothers.

The tract was formally acquired by Edward Estivant for 171,000 francs ($32,000) on April 10, 1861. At the time of acquisition, the holdings of the Estivant family in the Copper Country consisted of over 2,000 acres between Lake Fanny Hooe and Breakfast Lake which included such mines as the Bell, Agate Harbor, Clark, and Montreal. During the 1860's, work on the Clark Mine lands continued, with little success reported. The summer of 1869 brought Edward Estivant and Jules Borie back to Copper Harbor where they decided on a working plan for the resumption of operations at the Clark Mine. Jules Borie was the assigned agent of the mine at this time under whom approximately twenty-five men were employed sinking a shaft on the newly discovered vein in the line of the "Star break." A hoisting engine was set up near the new shaft and commenced work that summer.

In 1872 Leon Lauvaux accompanied Edward Estivant to America where he was employed as clerk of the Clark Mine. According to a report written by the surgeon of the Clark Mine, J. S. Walters (who had refused to sanction Leon's marriage to one of his relatives), from the time Lauvaux arrived in the Copper Country, "up to the present, he made himself particularly obnoxious and disagreeable to Mr. Borie, by making reports that being in Mr. Estivant's confidence, he was sent here as a spy upon the agent, that he was his adopted son, and that he was going to be the agent of the mine, and although repeatedly told by Mr. Estivant that such was quite an impossibility, on account of his utter incapability to fulfill the duties of the position, he persistently adhered to it in a most maniacal manner, and looking upon Mr. Borie as an object in his way." During the year 1873,
Logging the Estivants
Lauveaux made several threats against the life of Mr. Borie as related by Dr. Walters, and in 1874 after, "having been censured by Mr. Borie for some neglect of duty, Lauveaux, in a most demonstrative manner, in the presence of the present medical man, Dr. Walters, swore against the life of Mr. Borie on several occasions, this time with a knife." As a result, Lauveaux was arrested and brought before Justice O'Connor where he was ordered to keep the peace for twelve months in a bond of $6,000. "Failing to obtain this, he was sent to Eagle River, where, by the advice of his solicitor, he was tried under a writ of habeas corpus before the circuit commissioner, who set him at liberty through the omission of some legal technical point by the justice." Although Lauveaux could have been subject to re-arrest, Mr. Borie "with great kindness" forgave him on his promise to leave the country. In August of that year, Edward Estivant decided upon a change in management and arranged with Borie that Borie should leave the Clark Mine during the month of September. Soon afterward, Leon Lauveaux, who apparently had a fine reputation in mining circles, became the owners' representative at the mine.

In the spring of 1875, the Clark Mine had 36 tons of copper ready for shipping which was the first shipment of mineral made since the Estivant brothers took possession of the property. By 1877, Lauveaux had worked down to the sixth level in the mine, however, the work did not reveal copper worth the expense of mining. Operations at the Clark were practically closed down in May of
1878. With only meager returns and little hope for the future, Edward Estivant tried to sell the Clark during the summer of 1878, but could not find a buyer. The report for 1879-89 showed the Estivant property receiving more money for the sale of timber than they probably received for copper. During the winter of 1881-82, the main vein was worked for 2,000 feet without success. Although the next few years showed no further work at the Clark Mine, Estivant and Lauveaux remained in Copper Harbor. In 1883-84, Estivant leased manganese rights to the Cambria Iron Company, although they didn’t remove much of that mineral.

Edward Estivant died in France in 1898 and the property passed into the hands of Julie Hasslauer, the sole legatee and devisee of Estivant. She and Leon Estivant, grandson of Edward, apparently had a misunderstanding, and she brought suit against him on October 11, 1898. The Keweenaw County Probate Court granted equal shares of the county lands to both Julie and Leon.

Although Leon Estivant kept in touch with his holdings in the United States, the Clark Mine did not reopen. And, on December 1, 1942, Leon deeded the Clark property over to the Calumet and Hecla Consolidated Copper Company for $1.00 (it being the custom at that time not to disclose the full cost in the deed or title transfer filed with the county), thus ended nearly a century of ownership by the Estivants in the Copper Country.

At the present time, the Michigan Nature Association is attempting to save the Estivant Pines, which now cover only 300 acres of the original Estivant estate, by purchasing the “upper tract” of the property currently owned by the Goodman Lumber Division of Universal Oil Products. Should they succeed in this acquisition, it would mean not only saving a pocket of white pine, but also the history that goes along with it.

—Verna Trippel

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Ford Forestry Center
“The Computer Age”

The development of computer technology has had a strong impact on most fields of service and technology. The Ford Forestry Center has been a front-runner in bringing the computer into use for forestry applications.

Much of the research at the Center is concerned with long term studies which were originally set up 15 years ago for punch card processing of data. During the intervening years, the field of computer technology progressed so fast that the old punch card procedures were soon out of date. The catching-up started in 1966, when Professor Jim Meteer undertook the development of a standardized programming system for Continuous Forest Inventory (CFI).

The development of the CFI programs has provided means for computation of the large volume of plot data from Forestry Center growth studies and nearly 75 of Professor Jim Johnson's separate cutting and management blocks. It has also led to processing and analysis of a large number of projects for the forest industry.

As a result of this extensive activity in the CFI field, the Forestry Center staff has gained expertise in computer applications and now the sawmilling studies are being computerized. Professor Steve Shetron's soils-growth correlation studies from CFI plots is computerized. There has been excellent carry-over into the educational area.

Now Professor Meteer and Dick Mathes (FFC programmer) have offices in Fisher Hall and act as resource-people for the entire School of Forestry and Wood Products. Professor Shetron spends considerable time there on computer analysis of soils research data as does Don Schwandt (MS, 1971) Research Assistant. The Forestry Center is one of the largest computer users on campus and the Computer Center Seminar room is usually well stocked with forestry students, grad students, student assistants working on projects.

The Forest Management, Forest Business, and some of the Forest Science options require MA 140-Basic Fortran. Now two graduate level courses in computers and data processing have been added to the Forestry Curriculum (Prof. V. Johnson and Prof. J. Meteer). Graduate students are finding they can hardly complete a project without use of the computer in computation and statistical analysis of data. Some have even specialized in computer applications under Professor Meteer and nearly all have turned to Forestry Center staff for counsel and direction in data analysis and computation. Michigan Tech had the distinction of being selected by Micklos Toth, professional forester from Hungary; for special study in computer applica-

Ford Forestry Center, Alberta, Michigan

Tions in forest inventory and management control under an FAO (United Nations) Fellowship. Micklos spent 6 months here last year.

As a result, Forestry Center and Forestry Department staff work closely together and students receive much more exposure to the research organization and such men as Professor Shetron and Professor Meteer. In fact, these 2 men are now officially listed as Forestry Faculty. Ford Forestry Center research projects and data therefrom are readily accessible to student participation and the School of Forestry and Wood Products derives important benefit from joint activities from the research and educational departments.

Scott Johnson, Director Computer Center, Miklos Toth, Hungarian Forester and Prof. James Meteer at the M.T.U. Computer.
Preliminary results of a study by Bruce Haataja of the furniture industry indicates that expansion of wood household furniture manufacturing in the Upper Peninsula is economically feasible. Key factors being considered in this investigation are the markets outlook for furniture made of local species, the estimated return on investment for a typical size furniture plant located in the area and the comparison of the Upper Peninsula with existing furniture manufacturing centers on the basis of location-dependent costs.

Traditionally, the sawmill industry of the Upper Peninsula has exported to other areas its furniture grade lumber for conversion into finished wood products. It was reported that in 1965, 94 million board feet of maple, birch and beech lumber was produced in the Upper Peninsula. Of this lumber output, unpublished data indicates an estimated 40 million board feet were furniture grades (No. 2 Common and Better) which were shipped from the Upper Peninsula in lumber form. Since 1965, new production facilities for furniture dimension stock have come into existence, but no significant changes have occurred in the volume of finished wood products made in the Upper Peninsula. The failure of the Upper Peninsula wood industry to convert this lumber into finished products represents a considerable forfeit of profits and wages to the area.

There is general agreement throughout the furniture industry that the wood household furniture market will show considerable growth in the future. The U. S. Industrial Outlook 1970 indicates a 50 percent increase in factory shipments of wood household furniture in 1975 over 1970. Factors which account for this are a rapidly rising rate of new family formations, a rise in personal disposable income (especially discretionary income), the high mobility of the American public and the tendency of consumers to spend a large part of their income on home furnishings.

Early American furniture styles have been consistently popular, accounting for 26.8 percent of the showroom count at the October 1971, High Point Market according to Furniture South. Maple, which is used in a large percentage of Early American furniture was the third most popular wood with 10.2 percent of the total showroom count.

To project earnings for a furniture plant located in the Upper Peninsula and to compare local area manufacturing costs with established furniture manufacturing centers, a model furniture plant was described. The model was of medium size for the industry with sales of $3.6 million annually, producing Early American tables and chairs.

Manufacturing costs were estimated for example pieces of furniture and compared to selling prices of comparable quality furniture. A reasonable profit could be anticipated.

Of the numerous cost items in an operating statement, only those which vary with location are important in determining which location is the most costly. Therefore, the cost items which are directly influenced by location; labor, raw materials, transportation to market, power, taxes and industrial site were estimated for Houghton and Iron Mountain in the Upper Peninsula and six established furniture manufacturing centers. The least cost locations for serving the Chicago market were Iron Mountain, Fort Smith, Arkansas and Houghton respectively.

Although the study indicates that from the standpoint of pure economics the expansion of the furniture industry in the Upper Peninsula is feasible, the calculations to demonstrate this were based on the assumption that management skills and productivity of the work force were comparable to the average of the furniture industry at large. An expanded furniture industry in the Upper Peninsula would require importation of some basic skills in management, sales and design and the implementation of a good labor training program.
The conservation and efficient utilization of our natural forest resources is a problem of national concern. In our forest engineering research program we have devoted major emphasis towards the development of harvesting systems for marginal and submarginal forest lands and towards the increased utilization of forest residues in the form of tops and limbs. A possible solution to both of these problems is remote chipping. By chipping in the forest, much more of the wood fiber available can be harvested, and the irregularly shaped trees can be converted to a uniform mass which facilitates transport and handling. The key to the remote chipping concept is the development of systems to remove the bark from the wood-bark chip mass obtained by remote chipping.

The research effort of the Forest Engineering Laboratory is currently devoted almost exclusively to the problem of bark removal after chipping. Over the past several years, intensive research efforts have evaluated the potential of several techniques to remove the bark particles from a wood-bark chip mass. Among the methods tested have been:

1.) Air flotation in a specific gravity separator.
2.) Liquid medium methods.
3.) Compression debarking.

The results of the research program show that, for some species, a process of steaming, compression debarking, and abrasion is a promising solution to the bark removal after chipping.

The laboratory set up is shown in Figure 1. The wood bark chip mass is first subjected to low pressure steam in an autoclave (1). After steaming the chip mass is subjected to pressure between two compression rolls with a small nip setting (2). The majority of the wood particles pass straight through the rolls while the bark either adheres to the rolls to be scraped off separately, or crumbles into small particles. The wood output of the compression debarker is then subjected to an abrasion process (3) where the remaining bark particles are further broken down and can be removed from the chips by screening.

Encouraged by the results of the laboratory program, the F.E.L. is investigating the possibility of building a pilot plant to test the process under continuous operating conditions. Before the process can be considered a solution to the problem of bark removal after chipping, its performance must be evaluated under commercial mill type conditions, and the data necessary for a complete economic analysis of the system must be generated.

Along with the proposed pilot plant testing, a laboratory test program will be continued to extend the results to other species, and to work on any problems that will arise as a result of the pilot plants tests.

—James A. Matson,
Research Mechanical Engineer
Activities
of the Club
The 1972 Michigan Tech "Forester"

The "Forester" is the official publication of the Michigan Tech Forestry Club. It is the purpose of this publication to reflect on and record the activities of those Michigan Tech students enrolled in the Forestry curriculum. It is the intention of the publication to offer an expanded field of interest and study to those few members of the Forestry Club who would desire an activity outside of the norm of college study. Copy writing, publication layout and photography are only a few of the more mundane tasks performed by the "Forester" staff. A closeness and ability to work along with others are attitudes that are gained in the course of building a magazine.

The 1972 "Forester" was staffed by a group of very neophytic personnel who developed a competence for their duties as the year progressed. This is the twenty-third consecutive "Forester" to be so staffed. This year the editors and staff of the "Forester" had the great privilege and honor of compiling the 1972 Michigan Tech "Winter Carnival Pictorial", a task that was admirably handled by all.

I wish to thank and congratulate all of those Forestry Club members and staff who helped make this the finest "Forester" yet.

—Walt
THE '72 STAFF
(L. to R.): C. R. Crowther, Dave Engleman, Carol Buzzard, Walt Summers, Verna Trippel, Max Geiger, Chris Kionka, Gerry Ryszka.

EDITOR-IN-CHIEF: Walter P. Summers
CIRCULATION EDITOR: Christina S. Kionka
FEATURE EDITOR: Verna M. Trippel
ACTIVITIES EDITORS: Carol J. Buzzard
                       David J. Engleman, Jr.
                       Gerald J. Ryszka
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                       Max M. Geiger
BUSINESS MANAGER:
                       David M. Bergman
ADVISOR:
                       Dr. C. Richard Crowther
In the past, interest in the Forestry Club has been declining. Membership was much less than 50% of the total forestry enrollment. It seemed as though very few people even cared if the club existed. This year I am happy to report that things are improving. The spirit of the “old forestry club” seems to be returning. Membership increased to almost 40% higher than that of last year. The spirit and enthusiasm which has long since died could be seen coming back to life in the different activities throughout the year.

Homecoming showed the first sign of our revived spirit. For the first time in ages the forestry club has entered a float in the homecoming parade in addition to entering all of the homecoming events. As the year went on the club became more and more active. In addition to our regular activities we acted as judges and advisors to the Boy Scouts during their county-wide conclave-like event. We won the intramural horseshoe championship and placed second in the winter carnival skits. The very successful rifle raffle this year grossed over $1000! Our list of accomplishments goes on and on.

A system of class composition was also set up this year, with the hope of maintaining the spirit which has started to grow. The most active class of the year is awarded the U. J. Noblet award. This is a two-foot tall trophy which has been donated to the club by Dr. Eric A. Bourdo, Jr. The Forestry club still has a long way to go, and this year instead of sitting down as usual, we stood up and did something to put the respect back into the name “the Forestry Club.”

—Ronald J. Church
Chief Forester
The Otter River Camp
Where a forester can ....

Just have fun!
Summer Camp 1971

Foul Ball! — D. Kayser

L. Peterson

D. DePuydt

Ross — the switchman
Hammer’s gang

U. Sullivan

"Tex" Isaacs

MOST OF US MADE IT THROUGH!

2 points for a ringer —— right?
Conclave

'Twas the night before conclave
And all down the road
The tech team was traveling
Ten men was the load

Big Brother Day had decided
Who to go, who to stay
The seniors there presided
On the team for that day

State was our host
Gull Lake Research Center
Some almost got lost
Ere the gate they did enter

We met all our old friends
And some that were new
The next day decided
The school to bow to

Then morning came early
Where's breakfast, no one knows
Those foresters sure look burly
In those old logger clothes

Out to the field
The games must begin
Competition was rough
Yet we all stay good friends

There was pacing and dendro
Chains to throw, matches to split
Logs to saw and to chop
Don't forget the tobacco to spit

Then came the time
Points to decide
'Tis special event
Strip down to your hide

With pike poles and log booms
The deck you must walk
With water all around
No wonder you balk

Then soon all was over
The water was clear
The points were tallied
And Missouri we cheered

Now thank it's over
Till fall of next year
There's still the ice-cream social
With songs sung and beer.

—Bill Stewart
Amazing!

1971

Do you remember how?
—Duke and Mike

Must be an x-otic!—Drew

—Mike

If I could just get it apart.
—Dave

Oh no! It's getting away—Dude
Intramural Sports

The forestry club intramural program got off to a good start last fall with Rick Shepley and Randy Coleman defeating two other foresters (Dave Wellman and Gene Dillenbeck) for the horseshoe pitching championship.

Due to the larger enrollment in the club this year we had two teams each in volleyball and softball. Softball started pretty late this year due to an excess of winter. We didn't win any championships but we had the fun which is the most important part of any sport.

The hockey team had a successful season before being defeated in a double-overtime playoff game 2-1. The team enjoyed playing some of their games in the new hockey arena, although a good share of them were still played at the Dee.

Next year the club will probably be even bigger so we are looking forward to more success and more fun.

—Eric Frimodig
Up, Up and away!

Rifle Raffle

Records, records, records!
Over $1000 this year as D. Engleman, R. Church, T. Reedy, T. Schultes and E. Frimodig clown it up and homecoming queen Joann Jokela draws the winning ticket.
Big Brother Day

Silently, I, the Otter River Camp, sat nestled amongst the rustling pines. Tranquility was in the air as it is every early morning in the northwoods, with only the song of the white-throated sparrow above the wind.

Suddenly, in the distance I heard the roar of a motor. The old “Yellow Streak” had arrived. Big Brother Day was about to begin.

The saws were hauled out and the cants were readied. Matches aplenty were set aside for the splitting. Those with stomachs of steel pulled out the wad and took a “chaw of terbacky.” The log was there waiting to be rolled in record time. The men of brawn took up the challenge of the bolt throw, pitting their strength against each other.

For those of less ambition there was time for a leisurely fall stroll in the surrounding woods. Then there was the traditional noontime treat—LUNCH! Having plenty of hotdogs and potato chips to feed an army, everyone ate to their heart’s content.

The afternoon had added activities unfamiliar to the Otter River Camp in the past. Volleyball and softball were played by those having the energy to partake. Have you ever played softball in a cow pasture? Look out! Don’t slide there!

Now the people have gone, and I sit alone once again, on the bank of the fast flowing Otter River. Peace reigns once more.

—Terry Reedy

Come on Andy, someone has to pull.

Argh!
Light—Dude

How to do it—by a pro!
(Ms. Coffman)

Simple!
—Walt

Come on, push it this way.
Happiness is . . . !

Homecoming 1971

Forester spirit prevailed at this year's Homecoming. The Foresters put in a valiant attempt to take first place in Class "B" and even though we didn't get it, we sure made the winning team fight for it. Our greatest success of the homecoming challenges was our pyramid. Through practice the week before we were an almost precision team. When our turn came the Foresters had no trouble building a five story pyramid.

Continuing to fight for 1st place, the Foresters battled our way through the toilet paper roll, tug-a-war, pie eating, and chug-a-lug. That evening with our shining, dancing sun the Foresters took second place with our skit, "The Gathering of the Nuts."

The following morning was the parade. Being Class "B" the Foresters float didn't place, but it was the most noticed and talked about float around. Of course who could miss seeing it.

And so as this year continues and our memories of Homecoming start to fade, let us remember our most treasured saying—

"HAPPINESS IS A PUSH IN THE BUSH"

—David Engleman

... and there's still more, Verna
Winter Carnival
1972

The Foresters managed to take third place overall during Winter Carnival this year despite numerous difficulties, which included Paul Bunyan falling over the night before judging. We took third place in both snowshoeing and the dogsled race; and second place in the skits for our presentation of “wmPU—the Voice and Choice of the Copper Country.” The skit had to be one of the best ever presented by the Forestry Club and included such notable characters as Piggo Borkowski and Heikke Jakey Laikenen. Piggo astounded the audience by eating 86 live smelt, thereby setting a new world’s record; while Heikke revealed to one all the seventh wonder of the U.P.—a revolutionary two holer outhouse.

—Verna Trippel
Come on guys, the girls aren't that strong.

She's up to no good.
Ed Drier, Verna Trippel

Move that tree left about three feet.
W. Summers, E. Frimodig, A. Cole, E. Morse, A. Pierce, T. Reedy, etc.
Spring Field Day

The rain in the morning lasted just long enough to make us appreciative of the sun which shortly appeared and stayed with us for the rest of the day. Log sawing, the relay race, and match-splitting occupied our time until lunch. Also crossing the river the hard way (left) tempted a few unsuspecting participants before it was time to eat. About half of them demonstrated that it would have been easier to swim.

Booyaw was the menu for lunch, and almost all the cake you could eat. Then burling presented a problem even before we got the log in the water (lower left). The egg toss gave quite a few people a second and even third chance when the egg didn't break when dropped. All in all we had a great time, adding one more experience to our memories of the Otter River Camp.

—Sybil Kolon

A. Pierce, H. House, D. Szykoway, T. Reedy, E. Morse

E. Morse, E. Drier, C. Buzzard, K. Richmond, J. Ryszka
Venison Booyaw

You really think there's venison in there?

A woman's work is . . .

Fabulous stuff!

Give it what for, Terry
Every year the Forestry Department is fortunate in having several interesting and engaging guest speakers appear. This year was no different. The first speaker of the series was Mr. Berghefer, a retired Air Force Sergeant, who spoke on hunting in Germany which is primarily based on tradition, unlike that in the United States. Mr. George Fay, Assistant Regional Director of the National Park Service from the S.E. Region, gave an enlightening talk on recreation and how it is increasing at such an alarming rate, thus making it difficult to keep up with the public demands. Also speaking on a related topic was Mr. Paul J. Leach, Executive Director of the Michigan United Conservation Club.

Mr. Matt Laitala, a member on the Natural Resources Commission, spoke of environmental impacts resulting from man’s interference with nature. The series also brought us Mr. Charles Connaughton, Regional Forester of the Pacific Northwest Region, who gave us two talks, one on forest policy formulation and on formulating land use decisions. Finally, our guest, Booyaw speaker, Mr. David Frimodig, Regional Naturalist for Region I of the DNR, spoke on recreational trends of the present and future. On looking back, we have had a most interesting and enjoyable year and would like to thank these men for making it possible.

—Carol Buzzard
The Alpha Eta Chapter of Xi Sigma Pi completed its second year of existence with a record of accomplishment that will surely set a pace and direction for future years to come. Under the guidance of an extremely capable slate of officers the fraternity was able to achieve goals that firmly initiated its position on the Michigan Tech campus. This year saw the "comeback" of the Maple Leaf Plaque during the pledge weeks, and the accumulation of a core of very active and interested members. Pledging itself was made somewhat more meaningful to the membership with the formulation of pledge duties and activities.

There can be no doubt that Xi Sigma Pi is firmly a part of the forestry scene at Michigan Tech. Years to come will surely see an increase in activities from this organization as it strives to highlight the professionalism of Forestry.

This year's greatest achievement was the initiation, planning and production of a symposium that hopefully can become an annual part of the fraternity's events. The symposium was totally planned and carried out by the student members and must be considered as having been a complete success.

OFFICERS 1971-72

WALTER P. SUMMERS—Chief Forester
STEVEN J. VAN BUREN—Associate Forester
ROBERT E. LEFEVRE—Secretary—Fiscal Agent
ROGER G. HOEKSEMA—Ranger
DR. MICHAEL S. COFFMAN—Advisor
DR. C. RICHARD CROWTHER—Archivist
A Symposium

Clearcutting—a silvicultural practice in Northern Hardwoods?

The merits and limitations of clearcutting as a means of harvesting northern hardwood timber were discussed in a symposium held at Michigan Technological University, Houghton. Approximately 200 persons were in attendance, many traveling from Wisconsin, lower Michigan and distant parts of the Upper Peninsula. Others attending were students and faculty at Michigan Tech.

The symposium was sponsored by Alpha Eta Chapter of Xi Sigma Pi, national honorary forestry fraternity, at Michigan Tech. Walter Summers, chapter president, served as master of ceremonies.

Speakers were Carl Tubbs, silviculturist at the U. S. Forest Service Northern Hardwoods Laboratory, Marquette; Lynn Sandberg, general manager, woodlands, Mead Corporation, Escanaba; Roy Delongchamp, president, Timber, Inc., National Mine; Samuel Shaw, multiple use staff specialist, U. S. Forest Service, Upper Darby, Pa.; Mrs. Barbara Clark, board member, Northern Michigan Wilderness Coalition, Calumet; and Fred Haskin, timber management forester, Michigan Department of Natural Resources, Lansing.

Advantages of clearcutting, it was indicated, are the efficiency and relatively low cost per unit of timber harvested, and its suitability for use of modern mechanized logging equipment. Mr. Shaw emphasized the potential value of clearcutting for wildlife habitat improvement. The many small, intermingled stands of timber of various age classes, created under a well-designed clearcutting program, can create a variety of habitat conditions and desirable abundance of "edges" between vegetative types which are highly beneficial to wildlife, Mr. Shaw said.

The newest type of mechanized harvesting equipment, which reduces entire trees to chips, was discussed by Mr. Sandberg and Mr. Delongchamp. This equipment requires an investment of about a half-million dollars, and additional high cost of road and logging preparations before a logging operation can begin. Such costs, it was stated, could not be incurred for clearcutting areas as small as 40 acres. Thus smaller, more easily moveable and less costly equipment must be used if areas of 10 or 40 acres are to be clearcut, they concluded.

Mrs. Clark expressed concern for the future productivity of forests under a clearcutting program. This practice could lead to site depletion through erosion and removal of organic nutrient material, she warned.

The Michigan Department of Natural Resources has no intention of adopting a wholesale clearcutting program for timber management in northern hardwoods, Mr. Haskin stated. State forest lands of this type are to be harvested under the selection system, as they have in the past, he said. However, up to 20 per cent of the hardwoods forests may be cleared for small, permanent wildlife openings, he added.

Silvicultural problems described during the discussion include the propensity of northern hardwoods to sprout following clearcutting, creating a stand composed mainly of low-quality sprout reproduction; the long delay frequently encountered in obtaining adequate tree reproduction of any kind following clearcutting; the development of trees having poor form due to wide spacing of sparsely stocked reproduction; and the need for costly cultural operations such as cleaning and thinning of young stands which develop after clearcutting.

The clearcutting method is most applicable to low-value stands of hardwoods growing on poor-quality sites, incapable of producing high value hardwood sawtimber. Such stands can be managed best for pulpwood on an evenaged basis, it was said, but care must be taken to prevent the forests from deteriorating over several cycles of harvest and reproduction as sprouts continue to proliferate and produce trees of increasingly poor quality.

Carl H. Tubbs, Lynn Sandberg, Roy Delongchamp

Samuel Shaw, Barbara Clark, Fred Haskin
Awards and Scholarships

Fred Kekko, S.C.S. Farm Planner, Hancock; Rodney R. Ritter, student; Dr. Steven Shetron, Soil Scientist, Alberta.

Fred Kekko; David E. Wellman, student, and his wife Miriam; Dr. Gene A. Hesterberg, head, Department of Forestry, MTU.

Dr. Eric A. Bourdo, Dean of the School of Forestry and Wood Products and Charles P. Nielson examine the Board of Control Silver Medal presented to Mr. Nielson in recognition of his outstanding personal accomplishments, leadership and dedicated service to his profession and society. Mr. Nielson is vice president and general manager of the Woodlands Division, Owens-Illinois Corporation. Mr. Nielson was featured in the 1968 “Forester” salute.

Water P. Summers, Dr. Eric A. Bourdo, and Terrance A. Reedy in the first presentation of the annual outstanding Forestry seniors award, presented to Walt and Terry in recognition of excellence in scholarship, leadership and citizenship during undergraduate years of Michigan Tech.

Two Michigan Tech Forestry students received scholarships from the Soil Conservation Society of America this year. David E. Wellman, a senior, received the first scholarship in conservation established by the Michigan Chapter of the S.C.S.A. Rodney R. Ritter, a junior, was one of 20 nationwide winners, who submitted a theme of resource conservation.
## Alumni Directory

### A

<table>
<thead>
<tr>
<th>Name</th>
<th>Address/Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ackerman, Karl Edwin</td>
<td>1951, 270 Riverside Drive, Detroit, Mich. 28215.</td>
</tr>
<tr>
<td>Ahlgren, Richard C.</td>
<td>1962, 1309 Hillcrest Dr., Stillwater, Minn. 55021.</td>
</tr>
<tr>
<td>Ackerman, Sheldon C.</td>
<td>1958, 2161 Lincoln St., Eugene, Ore. 97405.</td>
</tr>
<tr>
<td>Anderson, Einar F.</td>
<td>1948, 2101 Lincoln St., Eugene, Ore. 97405.</td>
</tr>
<tr>
<td>Anderson, Kenneth J.</td>
<td>1940, 2150 Trenton Dr., Trenton, Mich. 49683. Forestry Supervisor III, Wayne County Road Commission.</td>
</tr>
<tr>
<td>Ardnt, Arthur M.</td>
<td>1951, 1633 Kalisher St., Granada Hills, Calif. 91340. Senior Deputy Forester, Los Angeles County.</td>
</tr>
<tr>
<td>Averitt, John C.</td>
<td>1951, 3105 Shadview Lane, Wayzata, Minn. 55391.</td>
</tr>
<tr>
<td>Avery, William P.</td>
<td>1966, 4915 Emstan Hills, Racine, Wis. 53406.</td>
</tr>
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### B

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<tr>
<th>Name</th>
<th>Address/Details</th>
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<tbody>
<tr>
<td>Babbini, Alan J.</td>
<td>1962, P.O. Box 608, Ketchikan, Alaska 99901.</td>
</tr>
<tr>
<td>Bailey, James A.</td>
<td>1965, 2101 Sandstone Drive, Fort Collins, Colo. 80321. Assistant Professor, Colorado State University.</td>
</tr>
<tr>
<td>Baker, Russell H.</td>
<td>1937, 1722 Hamilton Dr., Macon Ga. 31201. Wood Procurement Manager, Georgia Timberlands, Inc.</td>
</tr>
<tr>
<td>Balsiger, James W.</td>
<td>1966, 2039 Harrison Hall, Lafayette, Ind. 47906.</td>
</tr>
<tr>
<td>Barber, Donald A.</td>
<td>1970, 5558 Baldwin Road, Metamora, Mich. 48855. Carpenter, B &amp; M Barber, Inc.</td>
</tr>
<tr>
<td>Barber, Neil Jay</td>
<td>1969, 1080 East Forest Avenue, Muskegon, Mich. 49442.</td>
</tr>
<tr>
<td>Battey, Lawrence D.</td>
<td>1961, Box 311, Grand Marais, Minn. 55504. Manager, Georgia Timberlands, Inc.</td>
</tr>
<tr>
<td>Bentley, Everett Judson</td>
<td>1940, 20 Floyd Circle, Silver Bay, Minn. 55614. Land Engineer, Reserve Mining Co.</td>
</tr>
</tbody>
</table>

BERNARD, ROBERT J.; 1966, 1938 Missouri St., San Diego, Calif. 92109.


BERTSCH, ROBIN KENNETh; 1989, 2238 East 100th St., Chicago, Ill. 60617.


BETTS, JON; 1952, 320 Fair St., Calhoun, Ga. 30701. Area Forester, Hiwassee Land Co.


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BLAKE, FRANK E.; 1943, 49 Sparrow Rd., Carpentersville, Ill. 60010. Sales Agent.


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BOURDOW, MILES W.; 1949, Rt. 3, Tomahawk, Wis. 54487. Forester-Pilot, Wisconsin, Conservation Dept.

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BUCK, DAVID C.; 1966, Fern Mobile Estates, Rt. 1, Box 32, Junction City, Oregon 97448.

BUCKOVETZ, DENNIS P.; 1968, E Co. Sec. B. N. 9th Marines, 3rd MAR Div. FFO SF 56622. Commanding Officer, Co. E.


BU GERA, JEFFERY JEROME; 1968, 416 Balfour Drive, Regina, Saskatchewan, Canada.


BUNSTER, RENE O.; 1958, 1960 S. Wynwood Ave., Portland Ore. 97225. Forester-Automated Timber Accounting System Coordinator, USDA.


BURKHARDT, ALFRED F., JR.; 1960, P. S. 3, Prospect, Ore. 97536. USFS, Silviculturist.

BUTKOVICH, FRANK D.; 1942, c/o Stanky Foss, Barton, Vermont 05822. Field Supervisor Osmose Co.


CANAVERA, DAVID S.; 1965, Universidade Federal do Carana, Ecola de Florestas Rua Bon Jasus, 650 Curitiba, Parna, Brazil.

CAPUL, BIENVENIDO; 1967, P. O. Box 46, L'Anse, Mich. 49946. Asst. Forest Manager, All-wood, Inc.

CARLSON, BRUCE R.; 1958, 6028 Wilson Way, Milipitas, Calif. 95035. USFS.

CARLSON, LAURA E.; 1971, 6520 South 123rd St., Franklin, Wis.


CARON, ALBERT H.; 1963, Rt. 5, Box 95-A, Eau Claire, Wis. 54701. Assistant District Forester, Wisconsin DNR.


CENTNER, THOMAS R.; 1962, Rt. 1, Box 21, Lake City, Fla. 32055. Instructor, Forest Tech.

CHALFANT, MRS. DALLAS; 1991, Rt. 1, Box 436, Aumsville, Ore. 97325.

CHAMBERLIN, HARRY L.; 1951, 511 Carey St., Lansing, Mich. 48915.

CHAPPELL, PAUL W.; 1971, 138 E. Franklin St., Portage, Wis. 53901.


CIESLINSKI, THOMAS J.; 1953, Box 214, Winthrop, Maine. Environmental Resource Planner, Maine Dept. of Parks and Recreation.


COATES, JOSEPH F.; 1967, 405 N. Elm St., St. Joseph, Ill. 61873. Graduate Student, Utah State University.


COOK, DR. WALTER L., JR.; 1959, 360 Round Table Road, Athens, Georgia 30601. Assistant Professor, School of Forest Resources, University of Georgia.


CORKORAN, DR. THOMAS J.; 1955, 13 Gilbert St., Orono, Me. 04473. Professor, School of Forestry, University of Maine.

CROSS, GILBERT W.; 1971, 6427 Oriole Dr., Flint, Mich.

CROSS, ROBERT L.; 1952, Rt. 2, Box 31A, Woodruff, Wis. 54568. Midwestern Woodland Manager, Hoerner Waldorf Corp.

CUNDY, CLYDE Y.; 1950, 707 Logger Dr., Olympia, Wash. 98501. Owner, A to Z Rental Center.

DAHL, CLIFFORD A.; 1966, Rt. 1, Box 36 A, Laona, Wis. 54541. Block Forester, Consolidated Papers, Inc.


DAMSTED, JOHN A.; 1966, Box 185, Pine Falls, Manitoba, Canada. Assistant to General Logging Superintendent, Abitibi Paper Co. Manitoba Division.

DANIELS, DR. JOHN P.; 1955, Box 415, St. Ignatius, Mont. 59865. Physician.

DANIELSON, CARL W.; 1949, 1213 E. 5th St., Houghton, Mich. 49931. Manager of Operations, Institute of Wood Research, MTU.


DE LA MATER, JOHN C.; 1950, Bowler Ranger Station, Box 41, Bowler, Wis. 54418.


DE RIDDER, ROBERT J.; 1967, Box 356, Gary, West Virginia 24938. Staff Forester, U. S. Steel.

DE JARDIN, JOSEPH G.; 1958, c/o USFS, Prospect, Oregon 97536. Supervisory Forester, USFS.


DEVRIEND, ADRIAN J.; 1947, Rt. 3, Hayward, Wis. 54843. Agent for Area Forest Utilization, U. of Wis.

DEWEY, LAWRENCE A.; 1950, Rt. 7, Box 7916, Bainbridge Island, Wash. 98110. Construction Engineer.

DIEHL, MICHAEL J.; 1957, Box 9, Coolin, Idaho 83821. Senior Forester, State of Idaho, Dept. of Public Lands.

DONEGAN, FRED V.; 1948, Kapisseagin, Ontario. Owner of Spruce Motors.


DRUMM, LESTER O.; 1949, 1266 W. First St., Oakridge, Ore. 97463. Construction Foreman, Edward Hinds Lumber Co.


DUDLEY, JAMES F.; 1970, 2006 Libal St., Green Bay, Wis. 54301.

DUFFEK, RALPH; 1966, U. S. Forest Service, Littleton, New Hampshire. Assistant Ranger, USFS.

DUFOR, FRANCIS X.; 1959, Box 17, Mt. Hebron, Calif. 96066. Planning Forester, USFS.
DUROCHER, TERRANCE B.; 1970, 7748 W. Grantosa, Milwaukee, Wis. 53218.
DUNGEY, Major KENNETH B.; 1953, 6337 Newcomb St., San Bernardi- 
DYE, GLENN W.; 1965, 1119 Ruby St., Houghton, Mich. 49931. Graduate Student, MTU.

E
EASTLAKE, MICHAEL T.; 1968, Cincinnati, Ohio.
ECKER, EDMUND J.; 1918, Indian River, Mich. 49749. District Forester, Michigan Dept. of Natural Resources.
ELLIOIT, DAVID C.; 1964, RR #2, Box 141, Escanaba, Mich. 49829.
ERICKSON, IVAN E.; 1963, Star Rt., Box 58, Chemult, Ore. 97731.
ERICKSON, RICHARD R.; 1964, 621 Snow Apple Court, Che- 
boygan, Mich. 49721.

F
FABER, JOHN R.; 1970, 2600 N. Main St., Findlay, Ohio 45840. Operating-Surveyor, Glen A. Peterman and Assoc.
FALGE, JAMES R.; 1899, Wildwood Rt. 1, Dickson, Mo. 65459. Owner, Wildwood Safari Camp, Inc.
FALKNER, EDWARD H.; 1953, 8833 Powell, St. Louis, Mo. 63144.
FARBO, THOMAS P.; 1953, Box 1297, Orofino, Idaho 83544. Timber Staff Officer, U.S. Forest Service.
FELZER, RONALD L.; 1967, 1548 Blake St., Berkeley, Calif. 94703.
FISHER, DONALD J.; 1948, Box 192, Bergland, Mich. 49910.
FITZPATRICK, VERNON A.; 1957, McLain State Park, M-203, Hancock, Mich. 49930. Park Manager, State of Michigan DNR.
FLECHSIG, ALBAN R.; 1962, 4414 Cooke St., Duluth, Minn. 55804. Forester, USFS.
FLORIA, JEFFREY L.; 1965, Northern Portage Lodge, Mis- sanabie, Ont., Canada. Part Owner and Operator, Northern Portage Lodge.

FOLTZ, JOHN L.; 1965, Casilla 2-D, Angol, Chile. Agricultural Missionary, Board of Missions of the United Method. Church.
FOSSA, OTTAVIO Q.; 1953, P. O. Box 183, Lakewood, Wis. 54133. Staff Assistant, U. S. Forest Service.
FRANKENSTEIN, GUENTHER E.; 1954, Hilcrest Dr., Lebanon, N. H. 03755. Research Civil Engineer, USA Cold Regions Research and Engineering Labs.
FRANZEN, JOHN M.; 1952, 745 Grove St., Osokosh, Wis. 54901. Forester, City of Osokosh.
FUCK, GEORGE C., JR.; 1949, 703 Kinzie Court, Menasha, Wis. 54952. Industrial Engineer, Marathon Corp.

G
GANTZ, WILLIAM L.; 1971, 4339 N. Monitor, Chicago, Ill.
GATES, WILLIAM A.; 1956, Rt. 16, Box 552, Olympia, Wash. 98505. Right-of-Way Officer, Federal Highway Adm.
GEBHARDT, CARL F.; 1963, 907 LaFayette, Donipan, Missouri 63939. Assistant Ranger, USFS.
GELB, THOMAS A.; 1957, Hartford, Wis. 53027.
GILBERT, WAYNE C.; 1967, Box 234, Malta, Illinois.
GLEASON, GEORGE C.; 1959, P. O. Box 119, Cedarville, Calif. 96104. District Ranger— Warner Mtn. District, Modoc National Forest.
GODLEVSKYE, HAROLD L.; 1958, Box 46, Park Falls, Wis. 54552.
GOODMAN, JAMES B.; 1950, 213 E. Wilson St., Elmhurst, Ill. 60126. Western Division Forester, Commonwealth Edison Co.
HOLM, EDMUND W.; 1952, 3802 Vineyard Dr., Redwood City, Calif. 94061. Teacher, San Mateo High School.


HORAK, JACK E.; 1959, 1120 Callon St., Wausau, Wis. 54401. Owner Texaco Service Station.


HORNICK, John R.; 1950, 272 Hemlock Lane, Springfield, Penn. 19064. Group Leader, Resource Use, USFS.

HOSKING, RAYMOND JR.; 1950, 902 W. Hughitt St., Iron Mountain, Mich. 49891.


HUETTER, BERNARD F.; 1971, P. O. Box 154, Hogghton, Mich. 49931. Soil Conservationist, SCS.


HUTCHINSON, MILTON J.; 1956, Plainview Rd., Rt. 1, Sussex, Wis. 53089.

I


J

JACKSON, ARMAND O.; 1964, 543 Cedar St., Chillicothe, Ohio 45601. Service Forester, Div. of Forestry & Reclamation, Ohio DNR.

JACKSON, LEE W.; 1970, 425 N. Park St., Reedsburg, Wis. 53959.


JANOV, CHARLES G.; 1966, 117 W. Harney Rd., Esko, Minn. 55733.


JEFFERSON, LOUIS J.; 1971, 311 So. 16th St., Escanaba, Mich.

JENNINGS, The Rev. CLAIR G.; 1948, 5025 Harriet Ave., Minneapolis, Minn. 55419. Minister and Dean, Indep. Lutheran Seminary and Bible School.


JEWEILL, GEORGE E.; 1956, Star Route, Crystal Falls, Mich. 49920.

JOHNS, WILLIAM E.; 1966, 4110 E. Lake St., Minneapolis, Minn. 55406. North Central Forest Experiment Station, U.S.F.S.

JOHNSON, CARL G.; 1957, 818 S. 14th St., Shelton, Wash. 98854. Sales Representative, Himble Realty, Inc.


JOHNSON, JAMES; 1931, Ford Forestry Center, L'Anse, Mich. 49946. Assistant Professor, MTU.

JOHNSON, NORMAN L.; 1962, Box 63, St. John, Wash. 98971.

JOHNSON, RUSSELL A.; 1949, 1640 Spring St., Medford, Ore. 97501. Forester, Timber Management Assistant, Bureau of Land Management.

JONES, CHARLES G.; 1964, Box 483, Noxon, Mont. 59853. Forester, U. S. Forest Service.

JONES, RICHARD S.; 1964, RFD 1, Vermillion, Ohio. Recreation Forer, Lorain County Metro Park District.

JORGENSEN, JACQUES R.; 1952, Box 12254, Research Triangle Park, N. C. 27709. Soil Scientist, Southeast Forest Experiment Station.


K


KALK, PETER A.; 1962, 434 NW 29th St., Corvallis, Ore. 97330.


KARLING WILLIAM J.; 1953, 2150 Gridley, Reno, Nevada 89503. Lands Forer, USFS.


KEENER, JOHN M.; 1949, 4821 Maher Ave., Madison, Wis. 53716. Director, Bureau of Game Management, Wis. Dept. of Natural Resources.

KEESLER, VERN, 1969, Lakewood, Wis. 54138. USFS, Chatsworth, Ga.


KEPPEN, GARY H.; 1969, Rt. 3 East Bass Lake Rd., Eagle River, Wis. 54521. District Ranger, USFS.


KETCHBOW, LARRY W.; 1966, Point Beach State Forest, Two Rivers, Wis. 54241. Supt. Point Beach State Forest, Wisconsin DNR.


KILPILLA, KEITH V.; 1971, Rt. 1, Box 146, Chassell, Mich. 49916. Instructor in Applied Technology, MTU.


KING, PAUL M.; 1971, Dept. of Forestry, Stephen F. Austin State University, Nacogdoches, Texas 75961.

KINNUNEN, DAVID CHARLES; 1969, 11015 A Co. Rd. 15, Minneapolis, Minn. 55427. Seminary Student, Inter-Lutheran Seminary.

LITTLE, RICHARD B.; 1954, Rt. 1, Box 399, Chiloicothe, Ohio 43420.
Teacher, Peoria Public Schools.


LITTS, CRAIG V.; 1971, 100 Iron St., Norway, Mich.


Section Foreman, Michigan Consolidated Gas.

LOCEY, CRAIG T.; 1964, Rt. 3, Tomahawk, Wis. 54487. Forester Pilot, Wisconsin DNR.

LOCKWOOD, JACK P.; 1964, Rt. 2, Box 434, Boyne City, Mich. 49712. Forester, Michigan Dept. of Natural Resources.


LOWELL, THOMAS E.; 1959, 237 Wright St., Hancock, Mich. 49930. Graduate student, MITU.

LUKACH, GERALD M.; 1970; R. R. 1, Box 122, Bessemer, Mich. 49911.


LUNDBERG, JOHN F.; 1959, Box 4, Athelstane, Wis. 54104.

LUSK, GREGORY M.; 1959, 540 Riverside, Merritt Island, Fla. 32962.

M

MADISON, JAY C.; 1963, 2118 Monroe St., North Bend, Ore. 97459.


MAHALAK, WILLIAM J.; 1961, Box 137, Naubinway, Mich. 49762. Area Forest Supervisor, Michigan Dept. of Natural Resources.

MAHRINGER, ERIC B.; 1956, P. O. Box 302, Houghton, Mich. 49931.

MAHY, DENNIS M.; 1964, 613 Hamilton St., Portage, Wis. 53070.

MAKELA, HOWARD J.; 1948, Box 96, South Range, Mich. 49963.


MANTHEY, ROY O.; 1953, Deceased.


MARTINDALE, DONALD L.; 1950, 2354 Delano Dr., Macon, Ga. 31204. Landman, J. M. Huber Corp.


MASNADO, DONALD S.; 1953, 1017 Rawson Place, Fremont, Ohio 43420.


MASSON, DAVID M.; 1968, 4446 Wildwood, No. 12, North Bend, Ore. 97459.

MASSIE, MICHAEL R. C.; 1960, Box 663, R. R. 3, Manotick, Ontario, Canada. Senior Economist, Gov. of Canada, Dept. of Fisheries and Forestry.

MATERO, DANIEL A.; 1982, 6908 N. Kilpatrick, Chicago, Ill. 60630.

MATSON, PAUL L.; 1954, Rt. 1, Box 603, Centralia, Wash. 98531. Dept. of Natural Resources.

MATTILA, DAVID W.; 1961, Rt. 1, Box 267 C, Brush Prairie, Wash. 98605.


MATTSON, TOIVO M.; 1952, K. J. Clarkson Lumber Co., 32 East Grant St., Minneapolis, Minn. 55403. Owner.

MAUER, JOHN C.; 1970, Rt. #1, Shermons Dale, Penn. 17090.


MEADOWS, GEORGE G.; 1970, 705 E. 26th St., Hibbing, Minn.


METSA, ARNE A.; 1947, Box 310, Gwinn, Mich. 49841. Area Forester, Michigan Dept. of Natural Resources.

MEVES, KENNETH O.; 1953, 1725 N. 8th St., Sheboygan, Wis. 53081.


MILL, EUGENE E.; 1971, 123 Akron Dr., Cadillac, Mich. 49601. Soil Conservationist, SCS.


MILLER, ROBERT W.; 1940, Killed in action, Piendova Isle, 1945.


MILLS, HARRY C.; 1957, 422 Woodview Drive, Sun Prairie, Wis. 53590. Supervisor—Recreation Aids Unit, Bureau of Aid Programs, DNR Wisconsin.


MOORE, J. TERRY.; 1956, Box 339, Riggins, Idaho 83549. Riggins District Ranger, Nez Perce National Forest, USFS.

MOORE, 1st Lt. THOMAS G.; 1966, Sp. 49, Del Rio Mobile Homes Village, Del Rio, Texas 78840.

MOORE-BUNNEY, ROBERT S.; 1951, 14 Ross St., Dryden, Ontario, Canada. Chief Forester, Dryden Paper Co., Ltd.

MOSHER, ELAINE C.; 1961, Rt. 1, Box 436, Aumsville, Ore. 97325. Secretary, Western Farmers Assoc.

MYERS, JON E.; 1968, Box 2174, Hagerstown, Md. 21740. Forester, Landscape Division, Davey Tree Co.

N


NELSON, JOHN L.; 1966, Willow River, Minn. 55795. Area Staff Forester, Dept. of Natural Resources, Division of Lands and Forestry.

NELSON, RODNEY L.; 1961, Mirror Lake State Park, Rt. 3, Baraboo, Wis. Park Manager, Wisconsin Dept. of Natural Resources.

NEUBAVER, CLIFFORD A.; 1951, P. O. Box 171, Federal Way, Wash. 98002. Designer, Boeing Co.

NEWMAN, CAPT. ALAN G.; 1966, 6445 Freeport Rd., Fayetteville, N. C. 28303. Pilot, USAF.

NICKLE, DONALD G.; 1959, 904 Palmcroft Dr., Yuma, Ariz. 85364. Staff Assistant, Lower Colorado River Land Use Office, Dept. of Interior.

NICOLSON, JOHN A.; 1964, 7475 Osseo Rd., #12, Minneapolis, Minn. 55429. Research Assistant, Univ. of Minnesota.

NIELSEN, CHARLES P.; 1950, 5608 Olde Post Rd., Sylvania, Ohio 43560. Vice-President, General Manager Woodlands, Owens-Illinois, Inc. (Forest Products Div.)

NIELSEN, CHRISTOPHER; 1962, P. O. Box 106, Andover, Mass. 01810.

NISKANEN, JOHN A.; 1970, P. O. Box 407, Houghton, Mich. 49931.


NORGARD, ROBERT E.; 1950, 7846 Madison, Spring Lake Park, Minn. 55432. Vice President, MacGillis & Gibbs.

NORKOLI, RAYMOND R.; 1951, 1825 Shadyside Drive, Cadillac, Mich. 49601. District Forester, Michigan Department of State Highways.

NORLIN, JOHN T.; 1957, 1244 Germonno Ave. SE, Roseburg, Ore. 97470. Realty Specialist, BLM.

NORRIS, MAX E.; 1966, Sylvanite Ranger Station, Troy, Mont. 59935. Timber Sale Preparation and Admin. Kootenai National Forest, USFS.


NORTON, DOUGLAS S.; 1961, 5685 Castleton Lane, Kalamazoo, Mich. 49001.


O

O'DONNELL, WILLIAM A.; 1960, 301 Kings St., Porcupine, Ontario, Canada. Management Forester, Ontario Dept. of Lands and Forests.


OLSON, ALAN; 1959, 2701 Aspen Drive, Anchorage, Alaska 99503. Lands Classification & Appraisal Officer, State of Alaska DNK.


OLSON, WALTER A. JR.; 1953, 1700 Calumet, New Holstein, Wis. 53061.

O'MERRICK, DONALD J.; 1965, P. O. Box 87, Two Harbors, Minn. 55616. District Forester, Minnesota Lands & Forestry.


OUELLETTE, DAVID L.; 1970, Box 472, Didgeville, Mich. 49921. Graduate student, MTU.

P


PADDOCK, ROBERT W.; 1961, USFS, Glidden, Wis. 54527.


PARSSINEN, LAURI FREDERICK; 1953, 517 Lightning, Ki Sawyer AFB, Mich. 49843. Lieut. Col. USAF.


PARTYKA, LT. EUGENE J.; 1961, 1342 N. Hayward, Los Angeles, Calif. 90046.

PASTORI, FRED M.; 1962, 4596 Barrett Way, S. Salem, Ore. 97302. Forester, BLM.

PAULSON, NEIL R.; 1957, Cle Elum, Wash. 98822. Research Assistant USFS.

PEKKALA, OLIVER W.; 1950, 407 5th St., Waverly, Ohio 45690.

PENBERTHY, ROBERT J.; 1953, 11153 S. E. 52nd Court, Milwaukee, Ore. 97222. Manager, Technical Services, Oregon Saw Chain Division, Mark Ind. Co.

PEPPER, ALMON A.; 1959, 484 6th Ave., Park Falls, Wis. 54552. Personnel Manager, Kansas City Flameau Paper Co.


PETERSON, ROBERT C.; 1957, 1416 Colvin St. E., Syracuse, N. Y. 13210. Technical Service Engineer, St. Regis Paper Co.

PETERSON, ROGER E.; 1959, 1019 Forest Ave., Piqua, Ohio 45356. Log buyer, Hartzel Ind. Inc.

PHILLIPS, GREGORY M.; 1966, Oakwood Trailer Village #20, Rt. 2, Waynesville, Mo. 65583.


PIEHL, THOMAS W.; 1963, 1006 Hamilton, Minneapolis, Minn. 55416.

PIEPENBRINK, HOWARD H.; 1961, Box 205, Ashland, Wis. 54806.

PIERCE, RICHARD L.; 1949, Box 900, Dallas, Texas 75221. Senior Research Geologist, Mobil Oil Research & Development Corp.

PIETILA, JAMES A.; 1965, Rt. 2, Box 132, Minoa, Wis. 54458. Natural Resource Specialist, DNR Trust Lands and Investments.

PIIPARINEN, LAURI I.; 1937, 7808 Colgate Ave., Cleveland, Ohio 44102. Graduate Student, University of Minnesota.

PIRIE, JAMES A.; 1965, 233 North Dome Mines, South Porcupine, Ontario, Canada.


PLOURDE, A. EARL; 1971, 1602-S Crippen St., Cadillac, Mich. 49601. Assistant Area Forester, Iron Range State Forest, Michigan DNR.

POCHEECK, JONATHAN E.; 1968, Big Falls, Minn. 56627.

POSTLER, DAVID L.; 1970, 1602-S Jackson St., Appleton, Wis. 54911.

PRAIRIE, JOEL G.; 1971, 626 6th St., Lake Linden, Mich. 49945. Graduate student, MTU.


POKORA, THOMAS J.; 1970, 2478 So. 16th St., Milwaukee, Wis. 53215. Medical Student at University of Wisconsin Medical School.

POWELL, JOHN W.; 1959, 3132 N. Monroe St., Shawano, Wis. 54169. Assistant Area Forester.


R


RANDALL, WILLIAM K.; 1961, P.O. Box 44, Stoneville, Miss. 38776. Forest Geneticist, USDA Forest Service.

RECHA, PAUL T.; 1949, 914 Pine St., Hancock, Mich. 49939.

RECTOR, JOHN R.; 1966, 2006 Circle Way, Ogden, Utah 84403. Hydrologist, USGS.

REED, CLIFFORD G.; 1961, Box 333, White Swan, Wash. 99192. Forester, Bureau of Indian Affairs, Yakima Reservation.

REID, DR. LESLIE M.; 1961, 1202 Pershing Ave., College Station, Texas 77843. Head, Dept. of Parks & Recreation, Texas A & M University.


REUSCHEL, THEODORE M.; 1964, Box 75, Beulah, Mich. 49617. Area Forester, Betise River State Forest, Michigan Dept. of Natural Resources.


ROACH, ROBERT V.; 1956, Park Falls, Wis. 54552. Forester, Wisconsin Conservation Dept.


ROBERT, KENNETH P.; 1956, 801 W. Badger Road, Madison, Wisconsin 53713. Administrator-Division of Plant Industry, Wisconsin Dept. of Agriculture.


ROGERS, FRED J.; 1943, 971 Wisconsin River Ave., Port Edwards, Wis. 54469. Forester, Nekoosa-Edward Paper Co.

ROGERS, MICHAEL; 1964, 11731 Faust, Detroit, Mich. 48228. City of Detroit, Dept. of Parks and Recreation.

ROLLMAN, CHARLES W.; 1941, 1033 Neufeld St., Green Bay, Wis. 54304. Owner, C. W. Rollman & Associates; Civil Engineers, Land Surveyors & Foresters.


RUCINSKI, LOUIS; 1955, Oneway, Mich. 49765.

RUSING, RONALD L.; 1966, 6276 Newark Ave., Chicago, Ill. 60631.

RYAN, GEORGE H. JR.; 1962, 890 Central Ave., Coos Bay, Ore. 97420.


S


ST. ONGE, WILLARD C.; 1949, Box 156, Trout Lake, Mich. Conservation Officer, Michigan Dept. of Natural Resources.


STREJC. LADDEE M.; 1962, 811 Fulton St., Wausau, Wis. 54401. Sales Engineer, Wisconsin Industrial Truck Co., Inc.


SWENSON, EDMOND J.; 1952, 3709 Caraway Court, North Little Rock, Ark. 72116. Forester, USFS State and Private Forestry.

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SWENSON, EDMOND J.; 1952, 3709 Caraway Court, North Little Rock, Ark. 72116. Forester, USFS State and Private Forestry.

T

TAIT, JAMES W.; 1971, 336 Mason Ave., Drexel Hill, Penn.

TANASCU, MICHAEL C.; 1963, P. O. Box 145, Philipsburg, Mont. 59868. USFS.

TARCHINSKI, RAMON E.; 1967, Box 73, Side Lake, Minn. 55681. NRM—Forestry/Wildlife Projects, Minnesota DNR, Division of Lands and Forests.

TAYLOR, TAD I.; 1947, 410 N. Flower, Phoenix, Ariz. 85013.


TEEGUARDEN, DR. DENNIS E.; 1953, 4732 Westwood Court, Richmond, Calif. 94803. Assistant Dean and Associate Professor of Forestry, School of Forestry and Conservation, University of California, Berkeley.

THEILER, JERRY F.; 1962, 21 W. Lincoln, Tomahawk, Wis. 54487.

THEILER, RAYMOND R.; 1960, Box 126, Polson, Mont. 59860. Forester, Bureau of Indian Affairs, Flathead Agency.

THEREING, JAMES W.; 1966, 17333 Annchester, Detroit, Mich. 48219.

THEISEN, PAUL A.; 1962, P. O. Box 89, Tayeyeayenang, Lesotho, Southern Africa.

THEISEN, PETER A.; 1938, 1470 SW Batlow Place, Beaverton, Ore. 97005.

THOMPSON, WALTER J.; 1932, Box 457, Olla, La. 71465. Area Forest Manager, Urana, Georgia-Pacific.


TOMLINSON, PETER M.; 1963, 11331 19 Mile Rd., Utica, Mich. 49087. Assistant Prof. of Natural Science, Macom County Community College.

TREPTOW, KEVIN P.; 1968, Cambria, Wis.


TUBBS, DALE P.; 1955, 1234 W. Hillcrest Drive, Anchorage, Alaska 99503. South Central District Land Manager, State of Alaska—Division of Lands.

TUCKER, GARY F.; 1959, Yellowstone Ct. N. 8th St., West Riverton, Wyoming 82301.

TYLER, WILLIAM H.; 1964, 392½ Laurel Street, Chillicothe, Ohio 45601. Forester, Timber Mgmt. Section, Ohio Div. of Forestry and Reclamation.


VAN LOOSEN OORD, WAYNE; 1961, 207-C Fair Dr., Apt. 26, Champaign, Ill. 61822.

VANDE HEI, GERALD L.; 1938, Box 381, Shawano, Wis. 54166. Menominee Liaison Forester, Wisconsin Dept. of Natural Resources.

VANDER HEIDE, TONY J.; 1965, Box 8, Custer, S. Dak. 57730. Forest Hydrologist, Black Hills National Forest, USDA.


VAN ELLS, JOHN R.; 1971, 1042 West Crescent Drive, Manitowoc, Wis. 54220. Unemployed.

VANSON, GILBERT W.; 1971, 325-3 Saguoyee Ave., Oshawa, Ontario, Canada. High School Biology Instructor.

VAN TILBURG, JON D.; 1968, 23405 Stoneybrook Drive, North Olmstead, Ohio 44070.


VERVILLE, JAMES D.; 1969, 808 Mellette, S. W., Huron, S. Dak. 57350. Area Forester, South Dakota State Forestry Division.


W

WACKER, PETER J.; 1970, 476 McIntosh Lane, Belford, N. J. 07718.


WAGNER, DAVID T.; 1967, 2001 Post Road # 204, Madison, Wis. 53713. Staff Member, Bureau of Aid Programs, Wisconsin, DNR.


WAISANEN, PETER B.; 1962, 705 8th St., Post Falls, Idaho 83854.

WALIVA, GEORGE J.; 1961, Deceased.


WALL, CHESTER O.; 1951, 1101 Arrowhead Rd., Duluth, Minn. 55803. Engineering Aid, Earle Ruble & Associates.

WALTHER, WOLFGANG; 1970, Lot 22-A, Shaws Trailer Park, Columbus, Miss. 39701. 2nd Lieut. USAF, Columbus AFB, Mississippi.
WARREN, JOHN H.; 1964, Rt. 1, Menasha, Wis. 54952. Park Manager, High Cliffs State Park.

WARUCH, GLENN C.; 1971, Box 312, Kerhonkson, New York.

WATSON, DOUGLAS B.; 1958, 4398 Country Lane NE, Salem, Ore. 97303. Right-of-Way Agent, Forester, Oregon State Highway Dept.

WATSON, JACK C.; 1954, West 2nd St., Cle Elum, Wash. 98922. Resource Assistant; U.S. Forest Service.


WATTS, LYNN W.; 1965, 1017 Amelia St., Royal Oak, Mich. 48073. Admissions Counselor, MTU.


WEBSTER, ALAN R.; 1964, 13 First St., South Range, Mich. 49933. Assistant Area Forester, Mishwabic Forest, Michigan Dept. of Natural Resources.

WEBSTER, CARL D.; 1950, 1225 Wisconsin, Canton, Ohio 44710. Game Biologist, Michigan Dept. of Natural Resources.

WEBSTER, JOHN; 1951, 200 N. Stark St., Crystal Falls, Mich. 49920. Game Biologist, Michigan Dept. of Natural Resources.

WEBSTER, Р. H.; 1964, 128 Columbia Way, Montrose, Colo. 81401. Area Manager, BLM, USDI.

WICHMANN, MICHAEL E.; 1970, R. R. 1, Greenville, Wis.

WIDDER, JAMES J.; 1957, 823 В. Merrimack, Dodgeville, Wis. 53533. Forester—Black Walnut Cultural Specialist, DNR, State of Wisconsin.

WIDERSTROM, G. ARTHUR; 1967, 465 Everett Road, Lake Forest, Ill. 60045. District Forester, Minnesota DNR.


WILKE, WILLIAM K.; 1970, 1222 Western S. W., Canton, Ohio 44710.

In Memoriam

Laura Ann Pratt, ('73): 1951 - 1972

Laura Ann, best known to her many friends at Michigan Tech and at home as Laurie, had completed her junior year in the School of Forestry before a swimming accident ended her active life on July 20, 1972.

She was the daughter of Mr. and Mrs. Richard Pratt, East River Road, Grosse Ile, Michigan. In addition to her parents, she leaves brothers Richard, Douglas, Aaron and Clare and sisters Sara and Paula.

Her busy and promising years at Tech included many activities, especially the sports of which she was fond, skiing, basketball and swimming. Many will remember her always cheerful help in the cafeteria, as well as her contributions in classes and enthusiasm for the extensive fieldwork in her Forestry program, with its opportunities for enjoying as well as studying the natural wonders which she dearly loved.

Laurie graduated from Grosse Ile High School in 1969 with a fine scholastic record and participated in school activities. During her junior year she greatly enjoyed the companionship of an unusually attractive exchange student from Australia, Christine Boyd, who stayed with Laurie's family and shared her skill and enthusiasm for sports.

We have also been saddened to learn of the deaths of four additional Michigan Tech forestry graduates during the past two years.

Navy Lt. Norman L. Johnson, '62, was killed in July, 1970, as the result of an aircraft accident over Nevada. During a routine training mission from Nellis Air Force Base, Nevada, to San Diego, California, the aircraft apparently was struck by lightning which caused it to explode. Lieutenant Johnson was stationed in Hawaii at the time of the accident.

George H. Ryan, Jr., '62, was a drowning victim while scuba diving in the Pacific Ocean in July, 1971. He was a resident of Coos Bay, Oregon, and was employed by the Bureau of Land Management.

Chester B. Sorenson, '57, and his three-year-old son was killed in an automobile accident in Canada on August 12, 1971. Mr. Sorenson was employed by the Bureau of Land Management, and was living in Portland, Oregon.

Almon A. Pepper, '45, died September 20, 1971, as the result of a heart attack which he had suffered seven days earlier. He was employed as personnel manager of the Flambeau Paper Division, Kansas City Star, and resided in Park Falls, Wisconsin.

The students and faculty extend their sympathy to the families of these men and women.
in retrospect ...
Dr. Eric A. Bourdo and Professor Emeritus U. J. Noblet, founder of the M.T.U. Dept of Forestry, awarding the first annual class participation trophy to the class of '72.

Leonard B. Shiroda and his wife with Dr. Eric A. Bourdo at Len's retirement ceremony . . .

Good Luck, Len! and thanks for everything.
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