

GOPHER PEAVEY 1990



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DEDICATION

FRANK H. KAUFERT

1905-1990

Frank H. Kaufert, dean emeritus of the College of Natural Resources, passed away on February 17, 1990, at the age of 84 after a lengthy illness. Kaufert was a member of the faculty of the University of Minnesota from 1945 and served as a director of the School of Forestry from 1947 and as dean of the College of Forestry (now the College of Natural Resources) from 1970 until his retirement in 1974.

Frank was recognized nationally as an exceptional leader and spokesperson for the profession of forestry, and for forestry education and research. A native of Princeton, Minnesota, he was awarded all three of his degrees from the University of Minnesota, with the Ph.D. degree in forest pathology and forest products being awarded in 1935. In 1936, Frank joined the research staff of Dupont Corporation in Delaware, where he worked in

the field of wood preservation. From 1942 to 1945, he worked at the USDA Forest Products Laboratory, instructing at the U. S. Air Force School of Wood Inspection and conducting research on wood adhesives. He was involved in much of the early work on both urea and phenolic resins. Kaufert returned to the University of Minnesota as a professor and assistant director of the then School of Forestry. Known as an outstanding instructor of forest products and natural resources conservation, he was named director of the School of Forestry in 1947. Through his leadership, the School of Forestry became the College of Forestry in 1970. From 1957 through 1971, he successfully led the effort to establish the Kaufert Laboratory of Forest Products and Wood Science. He retired in 1974.

Well-known throughout the United States for his leadership in a wide spectrum of professional endeavors, Frank was instrumental in development of the McIntire-Stennis Cooperative Forestry Research Act, which continues to provide critical funding to universities for forestry and forest products research nationwide. He served briefly as the first USDA administrator of the McIntire-Stennis program in the mid-1960s. Additionally, he played an active role in the establishment of both the Forest Products Research Society (FPRS) and the Society of Wood Science and Technology, serving as an early national president of the FPRS. Frank was a national leader as well in the Society of American Foresters (SAF), chairing a number of national committees and serving as a member of the SAF Council. He helped found the Forestry History Society, an organization of which he later served as

president. His long record of accomplishments includes roles as president of the National Council of Forestry School Executives, president of the Foundation for Professional Forestry, and president of the Association of State Colleges and University Forestry Research Organizations.

Frank published over 150 scientific, technical, and general interest articles and books. He served as editor and associate editor for various journals. Most importantly, he exercised exceptional influence on the development of academic and research leadership in forestry nationally over a generation of his activity as a teacher and mentor. He took great pride in the accomplishments of those who were students and graduates of the University of Minnesota, in aiding in furthering their careers and recognition of their achievements.

As recognition for his outstanding contributions to the forestry profession, he received numerous awards, including the prestigious Gifford Pinchot Award of the Society of American Foresters, the American Forestry Association Outstanding Achievement Award, and the University of Minnesota Outstanding Achievement Award.

The memorial service was held February 22 at the St. Anthony Park United Church of Christ, St. Paul. Memorials may be made to the Frank H. Kaufert Education Fund, established in the College of Natural Resources through the University of Minnesota Foundation.

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Dean's Report

RICHARD A. SKOK

The past year has seen the University moving from an interim administration to "the new team" of President Nils Hasselmo. While this process is not quite complete as yet, substantial progress has been made. Leonard Kuhl joined the University as Senior Vice President and Provost for Academic Affairs. He comes from the University of California-Berkeley. We are now awaiting announcement of the decision on the Vice President for Agriculture, Forestry and Home Economics. Gene Allen, who has been serving in an interim capacity in this position for the past two years, is one of the finalists for this position. Both of these positions are vitally important to the future of our programs.

The new administration of the University is hard at work rebuilding the confidence of the people of the state in the University. The President has signalled an "initiative for excellence in undergraduate education", a major review of undergraduate liberal education, and goals for the University in strengthening excellence through diversity.

Coupling these developments with the already established strategies to improve the research and graduate education component of the University as well as internationalizing the curriculum represents an ambitious undertaking in an effort to position the University for its role in the 21st century. It keeps us very busy trying to be responsive to our professional and discipline needs within the broader University agenda. I am convinced that it is essential to our students and programs that the College of Natural Resources seek to be a part of these changes in the University of Minnesota. More importantly it is crucial to the professional and natural resource communities of which we are a part that our future graduates have the understanding and knowledge essential to effective functioning in the changing global and diverse social and economic conditions we are experiencing.

President Hasselmo and Vice Presidents Kuhl and Allen visited the College of Natural Resources in February to spend a brief period with a cross section of the faculty. In part this was a "get acquainted" meeting. During their visit they discussed major challenges they see before the University and heard concerns that faculty had about needs of our programs. We stressed the importance and responsibility of the University to move natural resources and environment to priority status for the decade ahead.

Remodeling of Green Hall essentially was completed in late December 1989. The faculty, staff and students of the Department of Forest Resources moved into the remodeled facility in late January 1990. They are still settling in at this writing. It certainly will provide a much improved facility for their programs both in terms of quantity and quality of the space. The landscaping on the east side of Green Hall still must be completed as well as the restoration of the mural in Green Hall. These are both scheduled for attention during the spring and summer months. We are planning to hold a dedication of the entire building and remodeling project in the fall of 1990. Look for further information on this.

The college recently proposed that the St. Paul Campus Health Services Building be permanently assigned to the Department of Fisheries and Wildlife. Fisheries and Wildlife presently shares Hodson Hall with the Department of Entomology. Both units are experiencing space use problems. This proposal was recently approved by the Vice President for Academic Affairs' Council. Also, approved for space in this facility were the University's Sea Grant Office and the Water Resources Center Office. This will make an outstanding co-location for these offices with the other natural resources programming units already represented on the northern fringe of the St. Paul Campus. We will be seeking funding for some renovation of this building at the earliest possible time. The actual date of occupancy has not been determined at this time.

The undergraduate enrollment of 335 students in the College of Natural Resources represents a nearly 17% rise over the previous year. The new curriculum in Natural Resources and Environmental Studies has attracted a good deal of undergraduate student interest. This curriculum is being offered jointly with the College of Agriculture. The largest undergraduate enrollment increases were in forest products and fisheries and wildlife. The undergraduate enrollment growth was accompanied by an increase of 6% to a total of 112 students enrolled in graduate program majors in the college.

A highly successful Wilderness Management Conference was cohosted by the College of Natural Resources and Region 9 (the Eastern Region) of the Forest Service in September 1989. Nearly 700 people from across the country were in attendance for the four-day meeting held on the Minneapolis Campus. Many were from the agencies with special responsibilities for management of these areas. Dave Lime of the Department of Forest Resources was a co-coordinator for this conference. He is completing the editing of proceedings for this conference which will soon be available. A special recognition of the 25th Anniversary of the Wilderness Act was a part of the conference program. A number of those who participated in the conference were graduates of our programs.

We were saddened by the passing of Dean Emeritus Frank Kaufert, Professor Emeritus Marv Smith, Professor Tim Knopp and

"More importantly it is crucial to the professional and natural resource communities of which we are a part that our future graduates have the understanding and knowledge essential to effective functioning in the changing global and diverse social and economic conditions we are experiencing."

Scientist Emeritus Ray Jensen during the past year. Each had served programs of the college in an exemplary manner for long periods. They are remembered by colleagues, many former students and by constituents of the college for the exceptional and varied contributions they made. One is reminded at times such as this how important the personal element is in the success of programs and institutions.

A special dedication to Dean Emeritus Kaufert is presented elsewhere in this issue of the Gopher Peavey. I had the special privilege of not only being his student, colleague and friend over many years but of succeeding him as dean of this very special college. Frank had an unwavering pride in our forestry students, graduates and staff that was well placed and highly infectious. We will perpetuate this pride and enthusiasm for the people and programs of the college in the positive spirit that so exemplified Dean Emeritus Frank Kaufert. He is missed.



**Department of
Forest Resources**

ALAN R. EK

**Professor and
Department Head**

The big story this past year has been our return to Green Hall. Except for fine tuning and landscaping, the Green Hall addition and remodeling project is completed. In fact we are occupying the remodeled space in Green Hall. Space has been sufficient so that nearly everyone, formerly spread in other campus buildings, has been able to return to Green Hall. The remodeled quarters are great! We especially like the conference room facilities. Forest biology and remote sensing laboratory space and facilities are truly excellent. The auditorium has new seating and is a superb facility. The new equipment that came with the project has also made a significant difference in our ability to address needs in research and teaching. We thank the many people who helped bring all this to fruition.

New faces we welcome to Green Hall include Dr. Dorothy H. Anderson, new assistant professor in the area of recreation resource management. Dorothy has a Ph.D. in natural resources from Colorado State University. She comes to us with recent experience as a consultant and earlier experience as a social forest advisor with USAID in

India. Prior to that she served as a scientist with the USDA North Central Forest Experiment Station in St. Paul. While at the station she worked on river recreation management research. Dorothy will also handle much of the undergraduate student program direction and advising in recreation resource management.

Barb Koth has also moved recently from Extension in the Department of Agricultural and Applied Economics to the Department of Forest Resources. She comes to us with a background in natural resources from Purdue University and is working in the tourism/recreation area for extension.

Gary Wyckoff and Egon Humenberger, scientist and assistant scientist, respectively, joined us this past summer as part of the transfer of the Aspen/Larch Genetics Project from the Institute of Paper Chemistry to the University of Minnesota. They are stationed at the North Central Experiment Station of the University at Grand Rapids. Gary directs the Aspen/Larch Cooperative which has ten members from across the eastern U. S., primarily forest industry and government agencies. Gary and Egon would welcome your visit to the station at Grand Rapids. They are in the process of building a new greenhouse/lab facility for that project. Acquisition of the project and its move to Minnesota were facilitated by the interest of Governor Rudy Perpich and funding from the Minnesota Legislature.

We note that Dr. Vilis Kurmis has retired, but he seems to come in regularly for consultation with students. We also congratulate Professor Scotty Scholten for being recognized as "Forester of the Year" by the Forestry Club. That recognition is a reflection of the many years of thorough teaching and thoughtful advising that Scotty has provided to students at Itasca and on the St. Paul campus. Congratulations are due Charlie Blinn for his promotion to the rank of associate professor effective July 1, 1989. Charlie will also take over the role of Forest Resources Extension Coordinator from Scotty for the next two years.

Our hats are off to Research Associate Dave Lime and his crew of graduate research assistants for carrying off the highly successful Wilderness Management Conference in September. The conference was hosted by the college, department and Region 9 of the U. S. Forest Service. The attendance of nearly 700 was indicative of the excellent program arrangements and the very high interest in wilderness management and its implications.

Faculty from the department helped the Minnesota Shade Tree Advisory Committee develop a report to the legislature entitled *Minnesota's Community and Urban Forests: Opportunities and Recommendation*. The report was funded by the legislature and prepared by a team of faculty and graduate assistants from four departments (forest resources, entomology, landscape architecture, and plant pathology) and the Minnesota Extension Service. The group also worked closely with state agencies. The legislature invited the report so they would

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have basic information on the function, value, condition, distribution, ecology and management of the state's urban and community forests. The report will be used to set the agenda for research, education and technical assistance programs in this area.

Professor Al Alm took a quarter leave of absence to work with the Minnesota Department of Natural Resources Division of Forestry during spring to review their nursery and reforestation programs. Judging from the many positive comments received from the DNR, that effort was a considerable success. In recognition of his work, Al received the DNR Division of Forestry Award of Excellence. The tour has further strengthened the ties between research and practice that are essential to progressive state forestry operations.

The new natural resources and environmental studies curriculum (NRES) really got off the ground this past year. The first orientation course for that, NRES 1001, was offered winter quarter by myself and Terry Cooper from Soil Science. Sixty-five students were originally enrolled and we felt the course indicated a very bright future for that curriculum. We welcome those students to the College. Faculty of the department have put considerable effort into developing this new curriculum. As part of that effort you will also see Forest Resources faculty participating more widely in instruction across the University.

International efforts in the Department the past year have multiplied. Much of that we owe to funding from the Pew Charitable Trusts for the Forestry for Sustainable Development Program. Professor Hans Gregersen and Research Associate Allen Lundgren have been leading these efforts, but many faculty from the department and across the campus have been involved. This program has been a catalyst in bringing visiting scientists concerned with forest resources from around the world to the campus. In particular, Dr. Norman Myers was here last spring for lectures and discussions on tropical forestry and sustainable development.

Professor Dietmar Rose is on sabbatical for a year in Freiburg, West Germany as a recipient of the U. S. Senior Scientist award by the German Alexander Von Humbolt Foundation. Professor Paul Ellefson presented the keynote address to the 40th anniversary meeting of the Scandinavian Society of Forest Economists in Visby, Sweden.

Important to the future of our programs, the Cooperative State Research Service (CSRS) conducted a review of the Department's forestry research and extension programs. Six forestry school administrators and scientists examined the program and documentation for the period of December 3-6, 1989. The review was also attended by representatives from the Agricultural Experiment Station, Minnesota Extension Service, and the Graduate School. Briefly, our programs received a very positive report. It was further noted that our graduate program is very competitive and attracts strong and motivated students. Faculty, staff and students deserve to be congratulated on these achievements. We have unmet goals and direction

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for the future, but it is clear that our programs are strong and well recognized.

Interest in forestry in Minnesota has reached new heights in the past year. There is much interest in the expansion of forest products industry in the state. Associated with that is a heightened interest in management and policy relating to all of the uses of forest lands. It is clear that our forests can be more productive. It is also clear that achieving that and satisfying the variety of users encompassing timber, water, wildlife habitat and recreation will require further research and strong educational efforts. We are looking forward to that challenge.

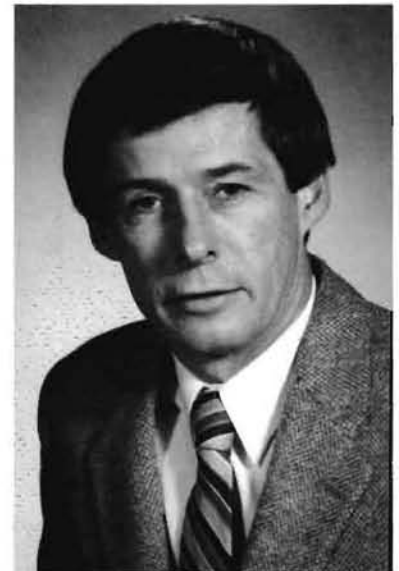
**Department of
Forest Products**

JAMES L. BOWYER

**Professor and
Department Head**

This academic year – 1989/90 – was a period of growth for the Department of Forest Products. It was a time during which strong programs were continued, and new ones begun. It was also a year in which several in our group received very special recognition for outstanding performance.

Growth occurred in several areas. Undergraduate student numbers increased by over 20 percent, with the greatest increases in the paper science and engineering (PS & E) and marketing programs. Faculty numbers increased as well. . . or at least funding was received for support of new faculty. Through the leadership of PS & E Program Director Bob Rouda, the 1989 Minnesota legislature provided funding for two new paper science faculty to be added next July; these folks, when on board, will strengthen our teaching program and will bring a new recycling focus to our paper science research program. Considerable growth also occurred in the number and total of outside research and technology transfer contracts brought in by faculty and staff. Continuing a trend that began several years ago, grant funding was up 47 percent over the previous year, and up 150 percent over only four years earlier. Success in this arena has enabled the department to expand its contributions to Minnesota and society in general in a number of important areas. Finally, considerable growth occurred in our National Management Center Fund – it now totals over \$500,000 – enough to complete the first phase of the project and insure establishment of the long sought center!



“Continuing a trend that began several years ago, grant funding was up 47 percent over the previous year, and up 150 percent over only four years earlier.”

Faculty, staff, and students of the Cold Climate Housing Center made us all proud when they were selected to receive the Minnesota Extension Service 1989 Issues Team Award. The team was cited for “outstanding achievement and missionary zeal while working across four colleges and six departments of the University and with faculty and staff of the Minnesota technical colleges, several state agencies, and the home building industry.” Team members from the department who were recognized were Center Director Lew Hendricks, Center Coordinator Pat Huelman, Extension Specialist Tim Larson, Assistant to the Director Jeanne Brownback, and graduate students Charles Delaney and Chris Reed.

The recognition received by Lew Hendricks was actually the second major award garnered by Lew within a short period of time. Several months earlier Lew became the first person outside of the wholesale or retail lumber industry to receive the Lumberman of the Year Award from the Twin Cities Hoo Hoo Club. This award was presented in recognition of Lew’s “contributions, vision, and personal commitment to the joint venture between the academic and business communities.”

One of the new developments around here in the last several years is the UROP program. Though it sounds like a name developed during high seas, the Undergraduate Research Opportunities Program allows academically superior undergraduates to work with faculty project leaders in the conduct of research and to earn money as well. As one of the more active participants in this program, the department has this year involved students in the wood composite products, lignin chemistry, and biodeterioration/bioprocess projects. Project Leaders Rolly Gertjejansen, Elmer Schmidt, and Simo Sarkanen, and participating students alike are enthusiastic about the program.

On the research side, Bob Erickson, Bruno Franck, and Vern Guyer have teamed up to design wooden bridges that are both long lasting and cost effective. With one new wooden bridge now in place, constant monitoring is providing information helpful to understanding of not only bridge design, but of basic wood science as well. The hope is that wooden bridges may become much more common in the years ahead.

Wood composites continue to dominate our new product development and product improvement efforts. Through a number of recent and current projects, research team members Gertjejansen, David Ritter, and Bob Kroll are contributing in a major way to more efficient use of Minnesota’s forest resources. Their work is also helping to insure that Minnesota remains the nation’s leading producer of structural wood composites.

As departmental research now covers a broad spectrum, there is not space herein to list all of the forty plus major projects now underway. However, one recent development is the expansion of research efforts related to construction and performance of energy efficient

homes. One such project took Phil Steklenski to Sweden for three weeks to examine housing technology there. Gertjeanson, Erickson, Ritter, Kroll, Larson, Huelman, and yours truly have all become involved in buildings oriented research in the past year. It is a development that will likely shape departmental research for some time to come.

Finally, forest products extension assistance provided to Minnesota's citizens and wood products producers continued to grow in 1989, with expansion of existing programs and development of new offerings. Reintroduction of softwood lumber grading programs and development of new planer/moulder short courses were among the initiatives for which Tom Milton was responsible. Tom and Harlan Petersen also worked together in producing a new secondary forest products industry directory for the State.

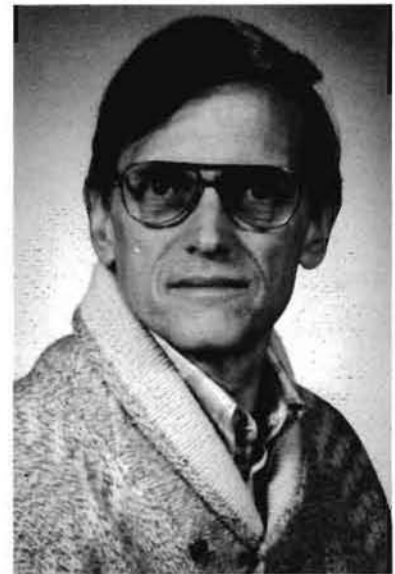
All things considered, it's been a very good year! Early indications are that 1990 may be remembered as the year of the many budget cuts – ah but that's a subject for next year's report. Anyway, if you want to see for yourself how things are going, please stop by and see us. The coffee (such as it is) is always on, and we're always eager to give you a first hand look at our work.

**Department of
Fisheries & Wildlife**

JAMES R. KITTS

**Associate Professor,
Extension Specialist and
Acting Department Head**

In reflection, 1989 was a productive year for our department, in spite of some changes and a sense of time which seemed too short to be a full 365 days. For the new Minnesota Cooperative Fish and Wildlife Research Unit, there was good news and bad news. The good news is that David Anderson was selected as the Assistant Unit Leader for Wildlife. Dave has been busy traveling about the state getting acquainted with various agency personnel and their research needs. Dave's skills in statistics and his expertise in raptor research will be very useful in providing assistance to graduate students and in conducting the type of applied research useful to resource management agencies. Prior to arriving in Minnesota Dave completed his graduate programs at the University of Wisconsin-Madison and had been work-



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ing on contract to the Fish and Wildlife Service studying raptor breeding and movements on military reservations in Colorado.

Now the bad news. The position for Assistant Unit Leader for Fisheries is still open and might not be filled this fiscal year. We are still working at it, but federal funds for new Unit personnel are exhausted. Perhaps in the next issue of the Gopher Peavey we'll announce the new leader for fisheries.

“Water, water everywhere and . . .” finally Minnesota discovered aquaculture. Both David Landkamer and Anne Kapuscinski have worked hard to provide useful information and counsel to those agency people and entrepreneurs involved in Minnesota aquaculture. Not only has Anne's work with gene transfer progressed rapidly, but her time commitment to such issues as water quality regulation for aquaculture facilities has escalated. Dramatic increases in requests for material and counsel for facility set-up, operation, and marketing have kept Dave's free time to a minimum. Dave has secured an extension grant to hire an undergraduate fisheries student, Tom Szendrey, to assist with the day-to-day requests for information.

Ira Adelman was the recipient of an administrative fellowship from the Bush Foundation. He spent several weeks at Carnegie Mellon University and Penn State University studying university administrative practices. For 1990 he will be on sabbatical working on special assignments through the Assistant Commissioner's Office at the Minnesota Department of Natural Resources. Ira's experiences should help us fine-tune our education and research programs to work more effectively with resource agencies.

Tom Waters is busy writing and enjoying his phased retirement. He has acted as a source of information to Peter Sorensen regarding his research sites, especially Valley Creek. Peter has made some interesting discoveries about pheromone use by fish and he is now working with this information relative to rainbow and brook trout reproductive behavior in Valley Creek.

Ray Newman, Anne Kapuscinski and I had the delightful experience, spring quarter, of team teaching the first class in FW 1101, “Ethics and Values in Resource Management”. The course is intended as a freshman/sophomore offering to awaken students to the need for developing a personal and professional resource management philosophy. We were surprised to find that 50% of our class members were junior and seniors. Nearly half the students were from outside the College of Natural Resources. The area of professional ethics seems to be in vogue with new courses appearing in many departments. A high proportion of these courses focus on natural resources or the environment. Perhaps, as Leopold hoped, we are finally at the threshold of developing a conservation ethic.

Speaking of conservation, the wildlife faculty voted to change the name of the graduate program to Wildlife Conservation. They feel this is a better expression of the breadth of their research involvement

and of grad student experiences. Additionally, several of our faculty have been actively pursuing development of a cross collegiate graduate program in Conservation Biology. Francie Cuthbert will be the first Director of Graduate Studies for this new program. Final program approval is expected by the end of April 1990.

The Itasca session has developed into a very successful action oriented field course. Likewise, the spring field trip remains a top attraction for those of our students who wish to have a professional experience during the spring break.

This year, for the first time, graduate students participated in the annual department retreat. This is held immediately prior to beginning fall quarter. New students received an official welcome to the department and all the graduate students had an opportunity to become better acquainted with each other and the faculty. The students enjoyed the occasion, the faculty benefited from student comments and this activity will become a regular part of the department retreat.

Jo Schroeder, Associate Administrator for the department, has been busy searching for a replacement for Norma Essex, who took a position with the Minnesota Building Research Center on the Minneapolis campus. Roslyn Zippa and Gerda Hagen remain as the office staff. The labs are operating as smoothly as possible under the supervision of junior scientist Jay Maher and lab tech Tom Buhl. Junior scientist Sylvia Morse and lab tech Al Gripentrog are working to keep the Coop Unit lab operating smoothly.

Space is a continuing problem. Yossi Cohen, Dave Smith and Peter Jordan will be moving to the newly remodeled Green Hall. They all have active research programs in forested lands or are involved with using GIS. This move will temporarily relieve our office space needs but, in the longer run, we will remain cramped, especially for laboratories. Perhaps next year we can include a positive report on the space issue.

May success shine upon you in 1990. The door is open, we enjoy visiting with former students. Consider stopping for a visit when you are in the area.

Fisheries & Wildlife
IRA R. ADELMAN
Department Head
(on sabbatical 1990)



FACULTY-FOREST RESOURCES**SEAN C. AHEARN****Assistant Professor**

Serves as assistant professor of remote sensing in the Department of Forest Resources. As such, he is responsible for conducting research and teaching undergraduate courses on remote sensing of natural resources.

His recent research involved the development of advanced techniques for digital image classification through the incorporation of artificial intelligence and expert systems technology.

Sean has worked in Indonesia on United States Agency for International Development (AID) – funded program for technology transfer of microcomputer-based remote sensing image processing systems. The work included hardware integration and software development in the U.S. and installation and training in Indonesia.

**ALVIN ALM****Professor (Cloquet Forestry Center)**

Teaches Silviculture and Senior Silviculture Seminar in St. Paul and Field Silviculture at the Cloquet Forestry Center. Advises a number of graduate students and conducts research in areas of regeneration and site preparation. Office is at Cloquet but often commutes to St. Paul.

**DOROTHY ANDERSON****Assistant Professor**

Joined the faculty March 1990. She is responsible for conducting research and teaching graduate and undergraduate courses in recreation resource management.

Dorothy received a Ph.D. in natural resources with an emphasis in human behavior in wildland recreation settings from Colorado State University. She has a master's degree in geography, emphasizing land use planning, and a bachelor's degree in geography, both from the University of Minnesota. Before joining the faculty, she worked for the Minnesota Department of Natural Resources as a consultant to the Division of Forestry, Utilizing and Marketing Specialists. Prior to that she spent two years working in India on community forestry projects with the U. S. Agency for International Development. And, prior to that, she spent twelve years working for the U. S. Forest Service as a research social scientist.

**MARVIN BAUER****Remote Sensing Laboratory Director and Professor**

Teaches Advanced Remote Sensing. Research interests include measurements and modeling of the spectral properties of vegetation, development of spectral inputs to growth and yield models, and applications of quantitative remote sensing methods to inventory and monitor crop and forest resources.

MELVIN J. BAUGHMAN

Associate Professor, Extension Specialist

I develop educational materials and programs aimed at improving management of nonindustrial private forest lands. I write extension publications, produce slide sets and video tapes, and organize conferences and tours on a wide variety of forestry subjects. My applied research focuses on forest economics and policy studies related to private forest lands.

ROBERT BLANCHETTE

Professor

Currently teaches the Forest Pathology course in the Department of Plant Pathology. Active research projects include investigations of wood decomposition and industrial uses of fungi that selectively degrade lignin, biological control of soil-borne diseases in tree nurseries, screening trees for resistance to gall rust, and other studies involving forest and shade tree diseases.

CHARLES BLINN

Assistant Professor/Extension Specialist

Co-taught Forestry Applications of Microcomputers. Major areas of interest are in forest management and economics, timber harvesting, marketing, and quantitative natural resource management.

KENNETH N. BROOKS

**Professor and Director of
Graduate Studies in Forestry**

In addition to part-time administrative duties as Director of Graduate Studies in Forestry, teaching and research activities continue. During the past year, teaching responsibilities included Forest Hydrology, Range Management, a colloquium "Forestry for Sustainable Development" with Hans Gregersen and Al Lundgren, and a new offering, "Agroforestry: Sustainable Production and Watershed Management." Research continues on the hydrologic function of peatlands and further development of a hydrologic model of peatlands – upland watersheds in the northern Lake States. Work with the Forestry for Sustainable Development Program has continued on the role and importance of watershed management. From May 13-25 co-taught a training course titled "The Role of Forestry in Sustainable Development of Dryland Regions" held in Amman, Jordan. A textbook, "Hydrology and the Management of Watersheds", co-authored by Peter Ffolliott and John Thames of the University of Arizona, and Hans Gregersen, will finally be released by Iowa State Press in June or July 1990.





THOMAS BURK
Associate Professor

Teaches Natural Resources Inventory, Forestry Applications of Microcomputers, and Forest Biometry. Research interests include development of forest growth and yield modeling methodologies, use of Bayesian concepts in sample survey design and analysis, microcomputer implementation of forest projection and planning systems, and statistical computation programming.



PAUL V. ELLEFSON
Professor of Forest Economics and Policy

Completed review of forest economics and policy research which is being published as *Forest Economics and Policy Research: Strategic Directions for the Future* (by Ellefson) (1989, Westview Press). Evaluation of state forest practice laws and statewide forest planning programs were completed in 1988 and have been reported in a number of publications. New research for 1989 and beyond includes evaluation of forestry information flows to state legislative systems and assessment of policy analyst activities in natural resource agencies.



DAVID FRENCH
Professor

Lectures on three subjects in forest pathology and is involved in the Urban Forestry course. Research involves vascular wilts (Oak Wilt and Dutch Elm Disease), aspen cankers, dwarf mistletoe of spruce and jack pine, chestnut blight and other tree diseases.



GLENN FURNIER
Assistant Professor

Teaches Introductory Tree Physiology and Genetics, Plant Molecular Evolution, Laboratory Methods in Plant Molecular Biology, and Forest Resources Seminar. Holds a joint appointment in the Department of Plant Biology. Research is in genetics of trees and mycorrhizal fungi.

HANS GREGERSEN

Professor

Courses taught include Forest Economics and Planning, Natural Resources in Developing Countries, and Economic Analysis of Forestry Projects. Current research deals with forest and economic development of less developed countries, evaluation of forestry research and the process of technological innovation in forestry.

DAVID GRIGAL

Professor

Teaches Advanced Forest Soils and Silviculture: Soil-Site Relationships at Cloquet. Interested in forest vegetation – soil relationships, including nutrient cycling, especially nitrogen nutrition and cation depletion: productivity on peatlands; and relationships between soil map units and forest productivity. Past work has dealt with biomass estimation, effects of forest disturbance, and numerical classification of forest ecosystems.

HERBERT KULMAN

Professor

Teaches Forest Entomology, Current Topics in Forest Entomology and part of Wood Deterioration in Forest Products. Research includes ecological studies on forest insects, especially defoliators of spruce, fir, aspen and jack pine.

VILIS KURMIS

Professor

Teaches Forest Ecology and Forest Field Ecology at Itasca. Current research deals with composition, structure and succession of ash-elm forests, black ash regeneration after logging, and vegetation changes in upland forests of Itasca State Park. Vilis retired from the College of Natural Resources at the end of the 1989 Itasca Session.



**DAVID LIME****Research Associate**

Joined the faculty in March 1987. Teaches the introductory Forest Recreation course and a newly offered course in Waterbased Recreation Resource Management. Is affiliated with the University's Tourism Center coordinated through the Minnesota Extension Service. Research interests focus on natural resource based tourism and recreation resource management with particular emphasis on water recreation and wilderness recreation use problems.

**ALLEN L. LUNDGREN****Adjunct Professor and Research Associate**

During 1989 I have been working with Dr. Hans Gregersen in managing the Forestry for Sustainable Development (FFSD) Program in the Department of Forest Resources. This program, funded by the Pew Charitable Trusts, is now into its third year. It is developing training materials and management information and providing technical support for development assistance organizations and national resource management agencies in the Third World. The FFSD program involves several faculty and graduate students from the Department of Forest Resources, and also faculty and graduate students from the Departments of Fisheries and Wildlife, Anthropology, and other departments on campus. It includes active collaborators from the University of Arizona and Oxford University, and from development agencies and non-governmental organizations, as well as private consultants.

My activities this past year have included: helping to teach a colloquium course on forestry for sustainable development; organizing and conducting an international conference in England on the management of forestry research; helping to organize and conduct a training course on the role of forestry in sustainable development of dryland regions for the Ministry of Agriculture in Amman, Jordan; organizing and conducting sessions on sustainable development for training courses at the Oxford Forestry Institute, Oxford, England; and collaborating in presenting a discussion of the role of forestry research in sustainable development at the IUFRO Workshop on the Management of Forest Research in Africa, in Nairobi, Kenya.

**ROBERT MARTIN****Research Fellow**

Joined the faculty of the University of Minnesota in the Remote Sensing Laboratory on February 16, 1988. His research interests lie in the integration of radar and optical measurements for the purpose of improving resource inventories and condition assessments of forests, grasslands and crops. Additionally, his interests include modeling the influence of canopy geometry on radar returns from vegetated surfaces. Related research interests include the development of ground truthing techniques necessary for the quantification of canopy morphology, vegetation moisture status and soil surface roughness.

**MARC E. MCDILL**

Marc McDill began his career in forestry in 1980 as a seasonal forest technician with the USDA Forest Service in the Black Hills National Forest. He received a bachelor's degree in forestry from the University of Minnesota in 1984, and in 1986 completed a M.S. in forest economics at North Carolina State University. He was awarded a Virginia Tech Presidential Fellowship, and in 1989 received a Ph.D. in forest economics from the Virginia Polytechnic Institute and State University.

CARL MOHN

Professor

Teaches Dendrology, Introductory Tree Physiology and Genetics, and Forest Genetics. Research includes forest tree improvement through selection and breeding: by hybridization in *Populus*.

JAMES PERRY

Associate Professor

Director of the Center for Natural Resource Policy Management and Director of Graduate Studies for Water Resources. Dr. Perry holds a Ph.D. in biology from Idaho State University, and has more than 20 years experience in water quality and environmental management. He has authored more than 65 technical and lay publications on water quality, aquatic biology, and environmental monitoring. He presents lectures at numerous locations around the world; he has collaborated with colleagues and presented lectures in many parts of the world, ranging from India and Thailand to Rwanda and Mexico.

Recent work in the Forest Water Quality Program has included experimental manipulation of whole ecosystems such as lakes (an ongoing 10-year acidification study), stream channels, temporary ponds, and coastal tide pools. Studies have included stresses such as acid, chlorine, ammonia, pesticides, and physical disturbance. Scientists in the program are involved in examining benthic invertebrates, algae, macrophytes, bacteria, and fungi. Many of the recent studies have involved decomposition and other measures of ecosystem integrity in order to address indirect effects of stresses.

LLOYD P. QUEEN

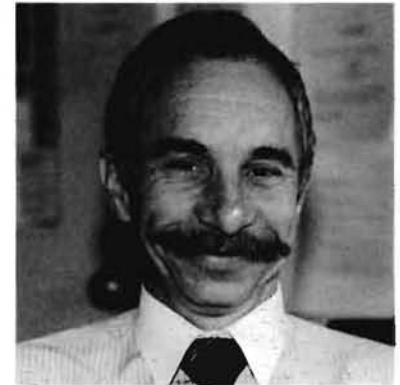
Research Associate

In this position Lloyd is responsible for working on research involving quantitative approaches to natural resources inventory and management utilizing remote sensing and GIS systems; including the design, development, and integration of digital image analysis and geographic information systems with emphasis on programming and data analysis. He received his Ph.D. degree in geography from the University of Nebraska - Lincoln, and holds an M.A. degree from the University of Nebraska - Omaha, and a B.S. degree from Mankato State University. His areas of expertise are remote sensing, digital image processing, GIS, automated cartography, and computer graphics. He teaches FR 5262, Remote Sensing of Natural Resources.

DIETMAR ROSE

Professor

Teaches Forest Economics and Timber Management Planning, Quantitative Techniques in Forest Management, and Role of Renewable Natural Resources in Developing Countries. The latter course is taught by a team of faculty members and addresses emerging international developing issues. He is currently finalizing an integrated forest planning model with funding from the Legislative Commission on Minnesota Resources. He is also leading efforts for coordinating and networking forestry research on an international level. He is working with international organizations in the economic assessment of biodiversity.



**SCOTTY SCHOLTEN****Professor**

Teaches Important Forest Plants at Itasca, Farm and Small Woodland Forestry, and Conservation of Natural Resources Course. Research is on designing farmstead shelterbelts, dry-land field windbreaks under center-pivot irrigation systems, and living snowfences to more effectively perform their major functions of controlling snow drifting and soil erosion, as well as providing wildlife habitat. Artificial scale model shelterbelts, windbreaks, and living snowfences are used to study the effects of design on snow distribution patterns.

**PHILIP SPLETT****Instructor**

Career Opportunities coordinator and Instructor. Teaches Conservation of Natural Resources, Forest Resources Orientation, and Field Forest Measurements at Itasca. Provides information and assistance to students and alumni seeking employment. Currently chairs the College of Forestry Scholarship Committee.

**EDWARD SUCOFF****Professor**

Teaches and learns from a great group of students in Tree Physiology and Genetics, Tree Physiology Lab, and Field Ecology at Itasca. Current research examines how acid rain affects trees and the physiology of water stress. Also involved in the Forest Vegetation Management Program.

**CARL VOGT****Extension Forester/Instructor**

Courses taught include Introduction to Forestry, Introduction to Minnesota's Natural Resources, Directed Study – S.E. Minnesota Hardwood Silviculture and Forestry for Teachers. Part-time Instructor and Extension Forester at the College of Forestry. General Chairman, 1988 – Minnesota Forestry Fair. Main areas of interest are Black Walnut management, maple syrup production, hardwood silviculture and Christmas trees. Manages woodlots and tree farms as a consulting forester and operates a nursery specializing in nut trees and hardwood seedlings. Very active in a number of forestry related organizations and professional societies.

TERESE A. WALSH

Research Specialist

Major subject interests: quantitative techniques for improving tree breeding programs, growth and yield modeling, computer applications in Forestry. M.S. in Forest Biometrics, Virginia Polytechnic Institute and State University. Experience: Westvaco, Clemson University, consulting.

DAVID WALTERS

Research Specialist

Joined the department in July, 1988, as a research specialist with the Forest Growth and Yield Cooperative. He holds a master's degree in forest biometrics from Virginia Polytechnic Institute and a bachelor's degree in forest management with a minor in statistics from Oregon State University. Prior to his appointment here, Dave had served as forest statistician with Boise Cascade Corporation in Boise, Idaho.



FACULTY-CLOQUET FORESTRY CENTER

MARNA BUTLER-FASTELAND

**Research Fellow,
Forest Vegetation Management Specialist**

Directs the Forest Vegetation Management Cooperative at the Cloquet Forestry Center. She is responsible for conducting forest vegetation management research and transferring research results to forest managers.

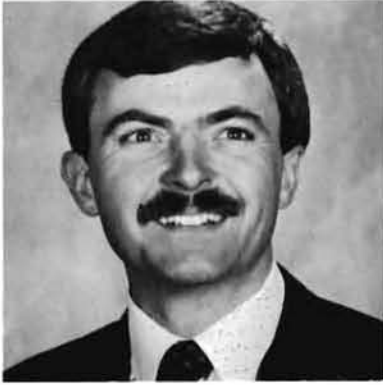


GORDON GULLION

Professor

Activities have been mostly involved with ruffed grouse and their management. This has included experimental timber harvesting in various configurations to determine the best options from both a biological and economic standpoint. This forest manipulation has been mostly directed at aspen management. Involved in assessing the impact of hunting on a grouse population. Teaches the Forest Wildlife Techniques Course to foresters who attend the Cloquet session and participates in various workshops and training sessions in various parts of the country.



**A. SCOTT REED****Assistant Professor**

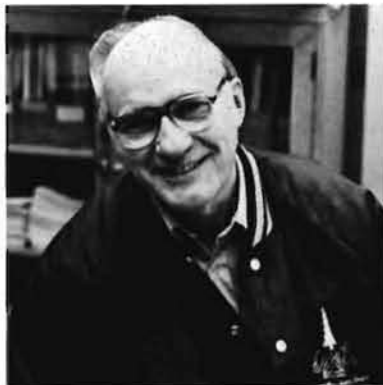
Extension Service programs and teaches FR 5248, Timber Harvesting and Engineering as part of the Cloquet session. Research activities include market system investigations of privately-owned timber, use of information in management decisions, and logging industry issues. Recent Extension programs include logging workshops, a short course on contracting forestry services, and the statewide North Star Exposition of Logging, sawmill and forest equipment.

**RONALD SEVERS****Associate Scientist/Forest Manager**

Current responsibilities include developing forest management programs for the Cloquet Forestry Center coordinating these programs with research activities at the Center.

**ROBERT STINE****Research Fellow**

Directs the activities of the Minnesota Tree Improvement Cooperative, working out of the Cloquet Forestry Center. Genetic improvement work is being carried out on red, jack, white, and Scotch pine and on black and white Spruce.

**FACULTY-FOREST PRODUCTS****ROBERT ERICKSON****Professor**

Teaches Topics in Wood Moisture Relationships. Research focuses upon developing improved processes for the drying and overall production of lumber, the analysis of drying stresses and strains, moisture movement and its effects, and the analysis of perpendicular-to-grain creep in first-dried wood.

BRUNO M. FRANCK

Assistant Professor

Joined the faculty in September 1987. His responsibilities cover teaching and research in the area of structural design of wood structures. Teaches Mechanical Properties and Mechanics and Structural Design with Wood Products; will also teach Design of Wood Structures and Mechanics of Wood and Wood Composites. His research deals with the development of expert systems for the evaluation of structures and the application of artificial intelligence, qualitative physics and expert systems to the design of wood structures.

ROLAND GERTJEJANSEN

Professor

Teaches Pulp and Paper Technology, Wood-Base Panel Technology, and Advanced Topics in Panel Products Technology. Research is on wood-base composite products.

VERNON GUYER

Lecturer

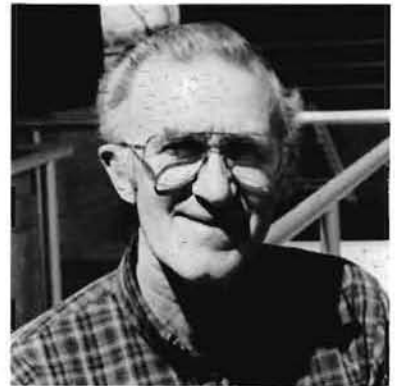
After many years of R & D experience in the adhesives and paper industries, I am now teaching courses in Surface and Colloid Chemistry, Paper Physics and Coating Developments. My research interests include: the chemistry and utilization of starch, paper and board technology, and the fundamentals of permeability.

LEWIS HENDRICKS

Professor

Coordinator – Cold Climate Housing Information Center (CCHIC), established in 1987. CCHIC is a source of comprehensive information relative to the design and operation of energy-efficient homes. Its objective is to assist the homebuilding industry to improve dwelling efficiency with respect to economy, occupant health and safety, and extended dwelling life. The staff consists of faculty members from three University departments within three collegiate units: Forest Products (College of Natural Resources); Design, Housing and Apparel (College of Home Economics); and Agricultural Engineering (College of Agriculture). The units work together to examine issues and to contribute information pertinent to their own area of expertise.

Continues to conduct the annual two-week Lumbermen's Short Course and annual Hardwood Lumber Grading Short Course. Author of publications dealing with wood heating, preservation, ice dams, cold climate construction techniques and wood finishing topics. Consultant to wood industries and homeowners. Board member of Woodcraft Industries, St. Cloud, Minnesota, since 1971.



**PATRICK HUELMAN****Associate Professor/Extension Specialist**

Coordinator of the Cold Climate Housing Center (CCHC). This Center has developed and is implementing an effective technology transfer program that will improve housing efficiency, livability, affordability, and occupant health and safety.

Areas of specialization include residential design, construction methods, and energy conservation. A current emphasis is energy efficient window technologies.

**ROBERT KROLL****Research Associate**

Composite panel research; specifically work with anatomical structures — features of balsam poplar as they relate to problems in machinability.

**TIMOTHY LARSON****Assistant Professor**

Works in the Cold Climate Housing Center, which aims its programming towards the design, construction, and occupation of residential housing. Workshops, courses and seminars are directed to builders, teachers and consumers to ensure housing that is comfortable, healthy, durable and energy efficient. Research evaluates the effectiveness of radiant barriers on reducing heat flux out of a house through the ceiling.

**THOMAS MILTON****Associate Professor**

Responsible for designing and implementing Extension programs and publications for Minnesota's sawmill industry and wood product manufacturers. Co-editor of the Minnesota Forest Products Marketing Bulletin.

HARLAN PETERSEN

Assistant Professor

Extension programs in forest products utilization and marketing with emphasis in the areas of wood drying and wood moisture relationships. Coordinator for the undergraduate program in Forest Products Marketing. Teaching responsibilities include Forest Products Marketing and the Annual Wood Industry Tours course. Advisor to the student chapter of the Forest Products Research Society and also resource person for the 4-H wood science/shop project.



DAVID RITTER

Scientist

Course instructor for Wood Structure and Identification with partial responsibility for Wood as a Raw Material. Research activities include the utilization of Minnesota tree species in structural wood composites, development of industrial particleboard from red pine, permanence of wood-based siding products, and the effects of plantation red pine juvenile wood on wood composite properties.



ROBERT ROUDA

Professor

Teaches Pulp and Paper Process Calculations (including the use of microcomputers for process modeling and simulation), Pulp and Paper Process Operations (applications of chemical engineering to industrial unit operations), and Paper Engineering Laboratory (including studies of industrial processes with the cooperation of local paper manufacturing companies). Interests lie in the development and application of modern computer process simulation technology to the improvement of pulp and paper process operations. This includes the development of computer simulation laboratories for graduate and undergraduate education seminars and workshops for industry, and associated computer programs for these purposes.



SIMO SARKENEN

Assistant Professor

Course instructor for Wood Chemistry I, Wood Chemistry II, Adhesion and Adhesives, and Graduate Seminar. Research is on physicochemical properties of byproduct lignins and chemicals and engineering plastics from renewable resources.



**ELMER SCHMIDT****Associate Professor**

Teaches wood deterioration, Undergrad Seminar, Methods and Advances in Wood Protection and Mushroom ID and Ecology (Extension Course).

Research is on control and application of fungi in forest products. Projects include: Fumigation of export oak, spore germination of wood decay fungi, preservative systems for wood composites, remedial treatment of decay, shiitake mushroom production on Minnesota hardwoods, biodegradation of kraft lignin components, and evaluation of new wood preservative systems, and biodeterioration in hardwood fuel chips.

**PHILIP STEKLENSKI****Associate Scientist**

Teaches Analysis of Production Systems. Major research interests are the technical and economic evaluation of new technologies in forest products.

**FACULTY-FISHERIES & WILDLIFE****DAVID E. ANDERSON**

Recent research has centered on communities of raptorial birds in east-central and southeastern Colorado, especially the impact of human activity on behavior of resident birds of prey. Related research has included projects on mule deer, pronghorn, swift fox, breeding avifauna, raptors, and aquatic vertebrates and macroinvertebrates. As the Assistant Unit Leader (Wildlife) at the newly established Minnesota Cooperative Fish and Wildlife Research Unit, I anticipate developing a research program emphasizing the impact of human activity on wildlife and their habitats. Current research interests include the impacts of human activity on wildlife populations, applying theoretical statistical models to sampling from wildlife populations, and ecology and management of raptorial birds and other nongame wildlife.

**YOSEF COHEN****Assistant Professor**

Teaches Wildlife Ecology Management: Planning, Policy and Administration. Involved in ecosystem modeling and competition in aquatic ecosystems.

JAMES COOPER

Associate Professor

Teaches Wildlife Population Ecology and Management and Waterfowl Management. Research includes incubation behavior of North American waterfowl, ecology and management of Canada geese and trumpeter swans, and waterfowl ecology in an urban environment.

FRANCIE CUTHBERT

Associate Professor

Teaches Introduction to Fisheries and Wildlife Biology and Management. Research includes behavior, ecology and conservation of nongame birds.

MARY G. HENRY

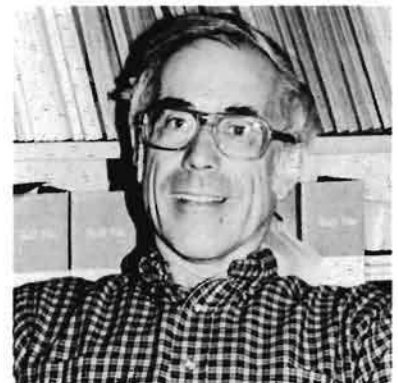
Associate Professor

As a result of a Congressional appropriation, a Cooperative Unit was established in the Department of Fisheries and Wildlife in December 1987. The Unit is a formal arrangement between the University, U.S. Fish and Wildlife Service and Minnesota Department of Natural Resources. Its purpose is to foster applied research of interest regionally and nationally and to train graduate students in natural resource management. Mary Henry was selected as the leader of this Unit. Her research interests are in the areas of aquatic toxicology and fisheries biology. Mary and her two assistant leaders will each teach one graduate/upper division course each year while advising M.S. and Ph.D. students.

PETER A. JORDAN

Associate Professor

Teaches an undergraduate course in fish and wildlife habitats and a graduate course covering ecology and management of large mammals. He has been studying the ecology and management of moose in Minnesota and at Isle Royale for more than 20 years, and recently has expanded his moose research to Sweden. Another overseas project deals with desert porcupines in Israel. Much closer to campus, Jordan has students looking at the ecology and behavior of white-tailed deer, using populations at the Army Arsenal in New Brighton and at the Village of North Oaks. His research on the Superior National Forest has focused on the integration of moose management with forestry practices. Jordan is a member of the Board of Directors of the Minnesota Zoo, where he is helping the expand endangered-species conservation and environmental education.



**ANNE R. KAPUSCINSKI****Associate Professor and Extension Specialist**

Fields of interest include fish genetics, aquaculture, and conservation biology. I am interested in understanding the influence of genetic makeup on persistence and evolutionary potential of managed populations of fish or other aquatic animals. I am particularly interested in genetic variation for quantitative traits because such variation is the primary template for selection and, thus, evolution. Current research is focused on determining the ability of fishing to act as a form of artificial selection and to elicit significant genetic changes in exploited populations. I am starting interdisciplinary research in conservation of aquatic biological resources in developing countries.

My other research interest in genetics is development of genetically improved lines of fish for aquaculture. I serve as Aquaculture Specialist under the Minnesota Extension Service and Sea Grant Extension; due to the recent establishment of the USDA North Central Regional Aquaculture Center, I have begun collaborating on regional Extension programs aimed at coordinated improvement of the aquaculture industry.

**JAMES KITTS****Associate Professor**

Each spring teaches Wildlife Management for Non-majors. Conducts workshops, seminars and field courses in Management of Woodlands for Wildlife. Organized and supervises the Minnesota Volunteer Woodland and Wildlife Advisor program. Instructs Master Gardeners, structural pest control operators, food processors and grain elevator operators in control of problem wildlife. Counsels urban and suburban landowners in methods of landscaping and management to attract desirable wildlife. Contributes to life skills of youth as a member of the National 4-H Shooting Sports Projects Committee and in Minnesota as an instructor and judge for 4-H projects in Minnesota 4-H Natural Science Program. Current research includes bird nesting activities in shelterbelts and educational evaluation of youth marksmanship programs.

**DAVID LANDKAMER****Assistant Aquaculture Extension Specialist**

Extension programs in aquaculture. Conducts conferences, workshops and seminars in aquaculture development. Counsels aquaculture clientele in technologies, regulations, and opportunities in aquaculture.

**RAYMOND NEWMAN****Assistant Professor**

Currently teaches Fishery and Wildlife Management and Assessment and assists with Ethics and Values in Natural Resource Management and Fishery and Wildlife Habitats. Research interests focus on stream ecology and feeding relations with an emphasis on factors affecting trout populations, the effects of human disturbance on stream fish and invertebrates and the potential role of defensive chemicals in aquatic plant use by stream invertebrates. Specific projects include the effects of beavers on trout and trout streams and the trophic relations of the exotic ruffe, a Eurasian perch-like fish, that recently became established in the Duluth Harbor.

DAVID SMITH

Associate Professor

Courses taught include Fisheries and Wildlife Orientation and Introduction to Fisheries and Wildlife Management. Research is on conservation of small wildlife populations.

PETER SORENSEN

Assisant Professor

Joined the department on July 1 as assistant professor of fisheries. Peter will be responsible for conducting research on fish reproductive behavior and physiology. He also will teach courses on comparative physiology and reproductive physiology. Peter presently is serving as a postdoctoral research fellow at the University of Alberta, where he is investigating endocrine control of pheromone detection, action, production, and release in teleost fish. He holds a Ph.D. degree in biological oceanography from the University of Rhode Island and a baccalaureate degree in biology from Bates College.

GEORGE SPANGLER

Professor

Teaches Ecology of Fish Populations and Fish and Wildlife Population Dynamics. Research includes fisheries management, fishery population analysis and modeling predator-prey interactions.

THOMAS WATERS

Professor

Teaches Production Biology in Fishery Habitats. Research includes stream ecology and secondary production. On phased retirement (half-time) until 1991.



**College of Natural Resources
STAFF**



MARILYN WORKMAN
Administrator



ANN MAYHEW
Assistant to the Dean



KAREN KANDA
Executive Secretary



NATURAL RESOURCES ADMINISTRATION

Left to right: Terri Byrd, Judy Rosaasen, Karen Dewanz

KENNETH N. BROOKS

Director, Graduate Studies, Forest Products and Forest Resources



FOREST RESOURCES STAFF

Left to right: Mary Nieber, Janelle Schnadt, Clara Schreiber, Marcia Ritterling, Kathy Middleton (not pictured)



FOREST PRODUCTS STAFF

Left to right: Terri Aistrup, Diane Clyne, Emily Sundeen, Mary Ferguson, Lynda Tucker (not pictured)



FISHERIES & WILDLIFE STAFF

Left to right: Rosyln Zippa, Jo Shroeder, Julie Horn, Gerda Hagen



FISHERIES & WILDLIFE LIBRARIANS

Sue Stegmeir (left) and Barbara Kauta

CLOQUET FOREST TECHNICIANS

Chuck Kramer (left) and John Blanchard

CLOQUET MAINTENANCE CREW

Gene Spicer
Mark Anderson



CLOQUET ADMINISTRATION

Left to right: Phyllis Bakka, Bonnie Jones, Karen Nelson, Kim Hedquist



CLOQUET KITCHEN CREW

Marlys Tate (left) and Florence Meger

OFFICE FOR STUDENT AFFAIRS



JOHN BELL
Assistant Dean



PHILIP SPLETT
Career Opportunities Coordinator



BILL GANZLIN
Student Personnel



OFFICE FOR STUDENTS AFFAIRS ADMINISTRATION
Sandy Gibbs (left) and Marni Lucas



ROBERT ALLEN
Forest Resources



TODD ANDERSON
Forest Resources



KATHY BEAULIEU
Fisheries & Wildlife



BARBARA BURKE
Forest Resources

GRADUATING

SENIORS



CHAD COLLMAN
Forest Products



DAVID HAUGEN
Forest Resources



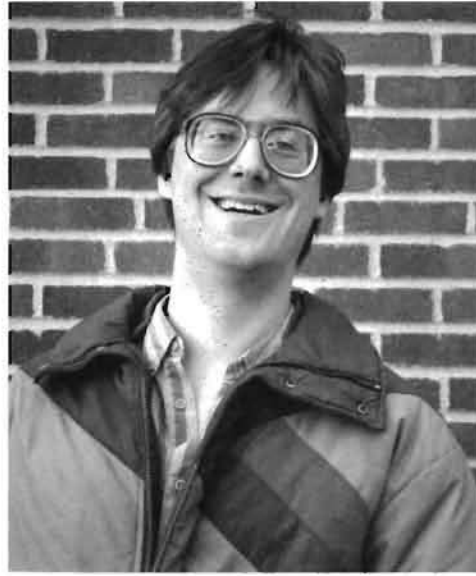
MICHAEL HUBER
Fisheries & Wildlife



NORREN JONASON
Forest Products



DONALD LABO
Forest Products



MICHAEL LANGESLAY
Fisheries & Wildlife



JANET LARSON
Urban Forestry



CHRISTINE LUECK
Fisheries & Wildlife

SENIORS



TIMOTHY MACK
Forest Resources



JEFF MARTENS
Forest Products



DOUG MAGEE
Forest Resources



DAVID MASTERS
Fisheries & Wildlife



PETER MCLEETE
Recreation Resources Management



TIM MURPHY
Forest Products



JIM MUSSELL
Fisheries & Wildlife



CURT NEDVED
Urban Forestry

SENIORS



ERIK PETERSEN
Recreation Resources Management



GREG PETERSON
Renewable Resource Science



STEVEN ROSCOE
Urban Forestry



TOM RYKKEN
Recreation Resource Management



ANDREA SCHWARTZ
Fisheries & Wildlife



DEAN SKALBECK
Recreation Resource Management



STEVE STENGER
Forest Resources



CARL TOIVARI
Forest Resources

SENIORS



KEITH TUSA
Forest Products



RANDY VANMARTER
Forest Products



JOHN VELSVAAG
Fisheries & Wildlife



SUE WALKER
Fisheries & Wildlife



**Itasca . . .
Such a Unique Name
for Such a Unique Experience**

**Forest Resources
Student's Perspective**

Marsha Curtis

Itasca was an experience that left each of us with memories that brought us humor, warmth and closer together.

With the Minnesota plants class, how could we forget the famous Scotty treks through the woods, those damp plant I. D. quizzes, and the plant Bible? (Whatever did happen to that, guys?)

How about those treks of our own with Sandy? I felt sorry for the man when we tested his Latin to the limit. On one of those treks with Sandy I remember Dave Pearson on the warpath with every green thing in sight (weren't we all?). If we had let him on the loose maybe we wouldn't have had to take that 200-plant I. D. final. Hmm . . .

Well, we did make it through the Latin in the first week and a half, but we still had a long way to go. Those green plants we learned about were looked at a lot closer in forest measurements class. I couldn't believe how much we actually did: cruise for data, plot data, collect data, calculate data, spit out data. I think we all ran down our pencil leads, calculator batteries and brain power by the end.

We had to combine those two classes together for ecology. I remember my soil-caked hands after being in those soil pits (all the profiles looked the same to me). And the time we couldn't find Vilis at one of the pits (OH! That was the flag!). How about good old Plot 13? How about our outrageous plans for Plot 13? (Bog/Amusement Park? I don't know. . .)



Don't forget all the good times. Like the herd of raccoons near Bemidji, the crazed squirrel in the lodge, squirrels being beaned in the head, Mr. and Mrs. Grover (who?), the swimsuit video and "chopped liver", the "gorgeous" volleyball players, and the wildlifers' campfires — but most of all the friendships. Even if it was a tough three and a half weeks I'll never regret all the wonderful friends and memories.



Fisheries and Wildlife Student's Perspective

Lyle Buss

I was dreading leaving my comfortable summer job to go up to Itasca for three and a half weeks of classes. I mean, aren't summers supposed to be relaxing? But the Itasca session was better than I expected, and I left with many unforgettable memories.

As I thought of what to write for this article, dozens of ideas immediately came to mind. How can anyone forget a nighttime canoe ride on Lake Itasca, with the water sparkling under the light of a full moon and the cry of a loon in the background? And how can I forget waking up at 5:30 one Saturday morning to "Wake up, Lyle, the fish are calling!" Is fishing really worth getting up at that hour of the morning?

I can't think of a more perfect place where I would rather take classes than at Itasca. The beauty of the forest with the stately red pines reaching for the clouds, ospreys and bald eagles in the sky, and otters and beavers in the water gives you an admiration for nature like never before. The night reveals its own beauty with dazzling northern lights and brilliant stars.

Of course, Itasca offers a great educational experience as well. Mist netting of songbirds, small mammal trapping, and electroshock-

"... how could we forget the famous Scotty treks through the woods, those damp plant I.D. quizzes, and the plant Bible? (Whatever did happen to that guys?)"

ing fish become familiar techniques to all fish and wildlife students who attend this session. Classes are informal, and you are encouraged to learn by doing.

Come to Itasca ready to demonstrate your volleyball skills and knowledge of campfire songs and computers. When the session is finally coming to a close, you can look that *Tamiascirus hudsonicus* right in the eye and say, "This has been one of my best college experiences!"



Cloquet Session

Dave Haugen

I waited with great expectations for my chance to attend the Cloquet forestry session. I had heard from classmates who had already attended Cloquet about what a great learning experience it is. It's like going to work instead of school, and the people you are with become a tight-knit group. Of course, you hear the flip side too, like being waist-deep in water looking for a section marker that rotted away years ago, or traversing woods so thick you can't even see your partner ten feet in front of you. The group I attended the 1989 Cloquet session with went through all of this and much more.

Who can forget the three greatest grouse hunters of all time? Despite a ratio of four boxes of shells to one bird I think the grouse population around the forest is safe.

How about the group of fishermen who sought the wisdom of the great fishing god Ron Severs – we caught more trees and snags than fish (are there really any fish in the St. Louis River?).

Then there were the visitors from the Minneapolis campus. What were they anyway, geographers, geologists...?

We followed in the footsteps of past students in finding ourselves at the Museum, where we could blow off steam, play pool, and pay professors off for better grades.

We recall the Rules of Thumb by Dr. Al Ek – and the questions asked by and of Dr. Al Alm during the presentations ("wait a minute, who am I?").

I would like to thank the college and faculty staff for opening our eyes and minds; I'd also like to thank my fellow classmates. Last of all, for the students going up to Cloquet in the future, enjoy and learn!

"When the session is finally coming to a close, you can look that *Tamiascirus hudsonicus* right in the eye and say, 'This has been one of my best college experiences.' "

Recreation Resources Management Club

Dean Skalbeck

During the fall of 1989 the RRM Club sponsored a speaker from Hennepin County Parks to speak about management goals relating to natural resources. Larry Gillete, a wildlife biologist with Hennepin Parks, gave an excellent slide presentation on the Parks and some of their projects. He also shed a little light on the job scene with Hennepin Parks. There was a good student turnout for this activity and we enjoyed Mr. Gillete's presentation.

In early November we once again hit the road north to the Chipewewa National Forest to clear our portion of the North Country Scenic Trail. The weather was cool and overcast throughout the day, but seemed pleasant as we went about our work. Numerous trees had fallen across sections of the trail as the beavers were diligently getting ready for winter. The evening before we hit the trail we stayed at Paul Pence's cabin on Big Sandy Lake. Everyone enjoyed the trip.

In the search for a person to fill the vacant faculty advisor position, we had an opportunity to interact with the candidates and give some input as to who may be the best person for the job.

Currently the club is looking forward to this spring's trail work in the great north woods!

**Forest Products
Research Society
Student Chapter**

Chad A. Collmann

The Forest Products Research Society student chapter is in its second year! The club has grown in size this year from 10 to 18 members. The officers once again this year are: Chad A. Collmann (president), Kurt Dahlquist (vice-president), Jeff Brinkhaus (treasurer), and Tim Knox (secretary). The Forest Products Research Society is a professional organization that has up-to-date information on all aspects of forest products. The club caters to people with all areas of emphasis including marketing, production management, wood science, and paper science and engineering.

The club started out the year by selling the five remaining sweatshirts it had from the year before. The sweatshirt sales were very successful and thanks to everyone who bought one. The club also took two tours this year. The first one was to Littfin Truss Manufacturer. Littfin Truss is the largest truss manufacturer in the upper midwest. The second tour was to Anderson Windows in Bayport, Minnesota. Twelve students went on the tour and everyone found it to be quite interesting. Anderson was quite generous, providing us with lunch and Anderson caps.

Spring quarter will bring us new officers and new events to plan. The future is bright for the FPRS student chapter and anyone interested in joining should not hesitate to get involved. Thanks to the officers who served this year and good luck to the new officers taking over.

“The club started out the year by selling the five remaining sweatshirts it had from the year before.”

Forestry Club

Conclave in the Ozarks 1989

Janet Larson

The ringing of a Missourian's accent in your ears, the smell of fresh-sawn wood, hollering in the woods, the echoes of team cheers, and a myriad of unfamiliar woody plant species set the stage and made up the backdrop of this year's annual gathering of midwestern college foresters. Thousands of dry oak leaves, ankle deep, carpeted the woodland floor of Camp Rising Sun. Azure skies with high cirrus clouds, calm lake reflections, and warm autumn temperatures are images that further describe the setting of the 38th Annual Midwestern Foresters' Conclave. The weekend event, held in the Missouri Ozarks, started off with warm dry breezes, cool night temperatures, and large wet globs of chewing tobacco.

Conclave is an annual festival of forestry that begins on a Friday night with a giant blazing bonfire where students from the various colleges can meet one another, play guitar or harmonica, sing songs, and share libations. Saturday begins with a hearty breakfast followed by a full day of competitive events. Old logging arts (like bucksaw and logroll), modern-day forestry skills (like traverse and wood I.D.), and "fun" competition like the tobacco spit fill the schedule for participants and spectators alike. The day's activities are followed by a generous dinner, awards program, and an evening of dancing.

Most competitive teams take Conclave very seriously. Team participants are many times chosen through practice competitions and eliminations back home. Some teams have expensive equipment, team t-shirts, team chants and rallies, and have a highly aggressive attitude toward winning. The Minnesota team, however, concentrates on participation and having fun. Gathering students for this year's trip was a bit challenging, but when the vans rolled away from the St. Paul campus on October 20 we had 13 undergraduate competitors and a team official (graduate student Steve Lund). The Minnesota participants are a unique group among the teams at Conclave.

Our tools

next page please

Steve Lund measuring a tobacco spit.

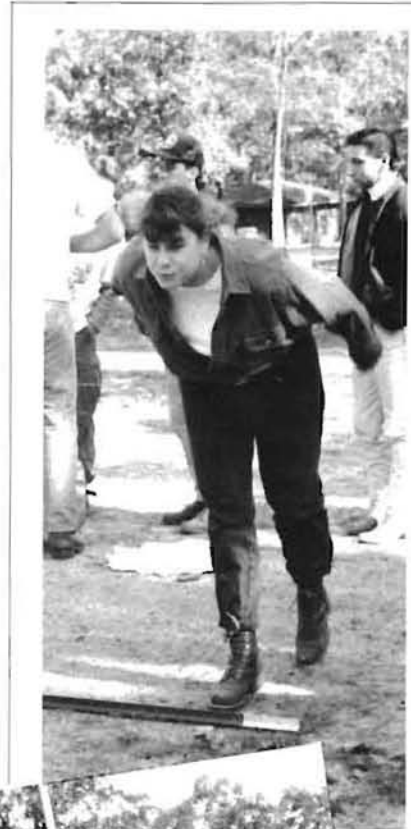


for the many brawny events (saws, axes, peaveys, etc.) come out of storage for only two events each year: Conclave and Foresters' Day. Our contestants for wood I.D. and dendrology begin studying for their respective exams in the van, en route, rather than prior to the trip. Some of our teams are formed "at the wire" with individuals trying an event *for the first time* at Conclave. The unranked Minnesota team, coming into the competition as a dark sawhorse, shocked the opposition by rallying to a strong third place showing.

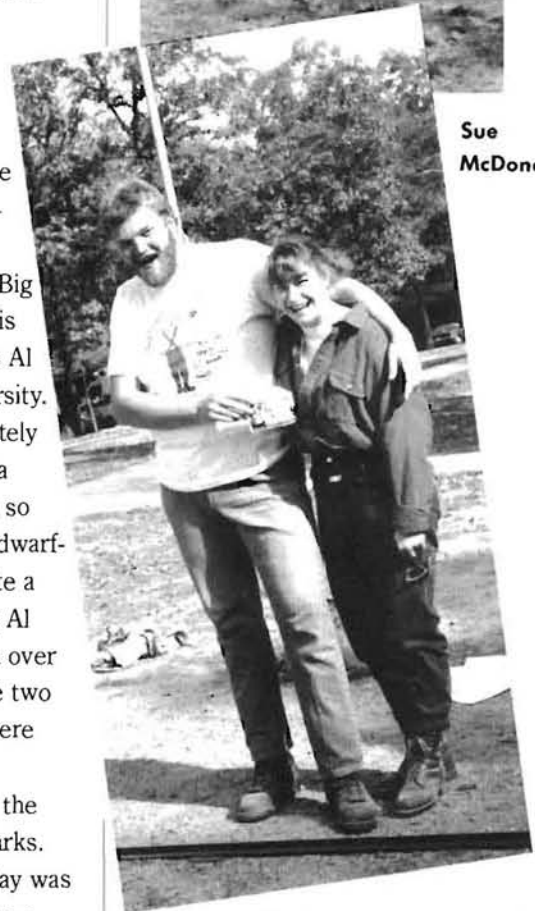
Of the several challenging, memorable, and embarrassing weekend happenings, three are particularly worth reporting: the tobacco spit, Dave Haugen's new-found friend "Big Al", and the country dance.

Most of the tobacco spitters were hard-core, long-time chewers. They chewed brands like Red Man, Beech-nut, and Chattanooga Chew. They were rumored to have aim and spit capabilities that could cover an entire sheet of 8 1/2 by 11 inch grid paper from ten feet away. Most importantly, they can produce copious saliva. Now, on *our* team, we had a non-chewer who shyly purchased a tin of Wintergreen Flavored Kodiak on a whim, got a wee bit of coaching from one of our veteran spitters, spent a great deal of time working up the correct consistency, and spat a blob that wonderfully covered the gridwork. Our non-traditional spitter was a woman, the one and only woman competitor in this particular Conclave event: Sue McDonald. Her record spit sent her reeling into a fit of laughter and happiness that lasted the rest of the weekend. She achieved instant fame and recognition for her third place spit – first, because she is a woman who had never spit before, and second, because she beat long-standing record spitter Big Al. Big Al was so humbled by this defeat that he presented Sue with his team shirt at the awards ceremony later that evening. Big Al is Al DeAtley, the Goliath-like forester from Southern Illinois University. He stands an intimidating seven feet tall and weighs approximately 300 pounds. His physical stature epitomizes the stereotype of a lumberjack, but his demeanor is friendly and warm. His size is so large that the Minnesota standard of "big" becomes altogether dwarfed. Dave Haugen, veteran Conclave competitor, had taken quite a fascination with the big fellow over the past few years until Big Al became nearly an idol. The two developed a mutual admiration over the weekend that resulted in their becoming great friends. The two even became a short-time item Saturday evening when they were spotted dancing together!

A live country band provided the feature entertainment at the dance held in a recreation building overlooking Lake of the Ozarks. The sky outside twinkled with so many stars that the Milky Way was visible. Inside, hearty souls that had survived the day danced to a twanging country beat. The youngest of our group, Marsha Curtis and



Sue McDonald



Al DeAtley & Sue McDonald

1989 CONCLAVE**PARTICIPANTS**

Back row: Leo Larkin, Eric Peterson, Todd Anderson, Jeff Cordes, Doug Magee

Middle row: Sue McDonald, Barbara Burke, Mike Brehm, Marsha Curtis

Front row: Janet Larson, Dave Haugen, Mandy Sjoquist, Bruce Benner, Steve Lund



Mike Brehm, had the most reserve energy to spend wildly launching themselves off the worn wooden floor. Locating other Minnesotans to dance with, men in particular, became one of the final challenges of the day. The poor fellows were probably too tuckered out from the day's activities, so the women danced with each other and with acquaintances from other schools.

The U of M Conclave team returned home tired but happy with the knowledge that they had represented their school well, made new friends, and enjoyed themselves without breaking any laws – except for the single persimmon twig with wonderful miniature pumpkins that was transported across state lines.

University of Minnesota Conclave Place Winners:

1st Place	Two Lady Log Roll	Sue McDonald, Amanda Sjoquist
1st Place	Wood Identification	Barbara Burke
1st Place	Dendrology	Janet Larson (tie with Missouri)
2nd Place	Tobacco Spit	Erik Petersen
3rd Place	Tobacco Spit	Sue McDonald
3rd Place	Chain Throw	Jeff Cordes

Other Conclave Participants:

Todd Anderson
Bruce Benner
Mike Brehm
Marsha Curtis
Dave Haugen
Leo Larkin
Steve Lund
Doug Magee



Al DeAtley & Dave Haugen

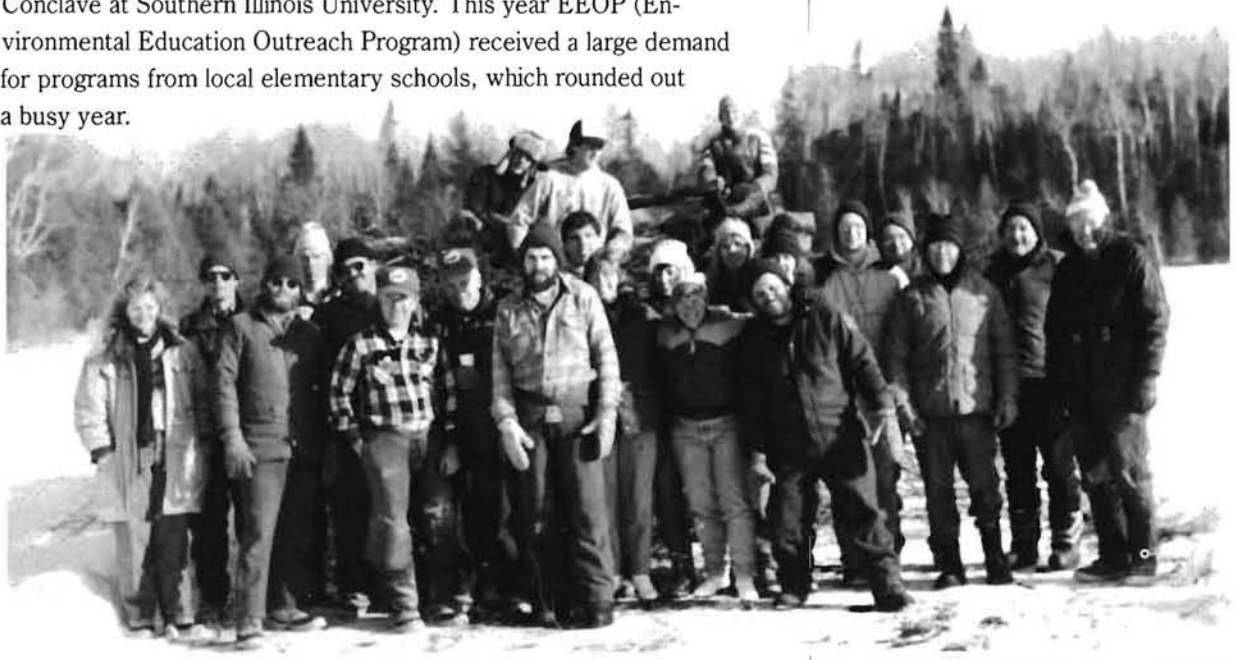
Student Chapter of the Wildlife Society

Kathy Beaulieu

Fall quarter started out by members sharing their summer job experiences in a slide show. Many people were involved in field research while others were involved with management or education. Students were splattered around the country from Purple Loosetrife control here in the Twin Cities to fighting fires out west and Dusky Goose management in Alaska.

The biweekly meetings continued to feature guest speakers, addressing such topics as endangered burrowing owls and piping plovers, Alaskan seabirds, Minnesota herps, bats, fisheries in the Peace Corps, Pheasants Forever, the DNR Natural Heritage Program and managing roadsides for wildlife with the Department of Transportation. Projects have included building nesting boxes for burrowing owls and placing them in Blue Mounds State Park, building mallard nesting platforms for Carlos Avery, building nesting boxes for wood ducks and bluebirds and ornamental deer for sale at the Forestry Club Christmas Tree lot, planning the annual fall College of Natural Resources bonfire, working at a deer check for Hennepin County Parks, participating in two Audubon Bird Surveys, plucking pheasants for pollution studies, installing fish cribs at Chippewa National Forest, and helping plan Wildlife Week and Earth Day 90 at the University. The club also hosted a CNR hayride at Bunker Hills, went winter camping at Gooseberry Falls State Park, attended the Wildlife Society Annual Conference in St. Cloud, visited Nerstrand Woods and Weaver Bottoms to view wildflowers and find herps in the spring and attended Conclave at Southern Illinois University. This year EEOP (Environmental Education Outreach Program) received a large demand for programs from local elementary schools, which rounded out a busy year.

“Students were splattered around the country from Purple Loosetrife control here in the Twin Cities to fighting fires out west and Dusky Goose management in Alaska.”



**Fish crib building at Chippewa
National Forest**



Subsurface habitat (or fish cribs) allow smaller fish to swim freely. They also provide protection from larger predatory fish. Fish cribs are attractor sites. Large fish (or people fishing!) know that meals are lurking here.

**SAF Student Chapter,
1989-1990:
A Year of Action**

Erik Petersen

"Timberrrr!!" hollered Steve Johnson as the buzz of his chainsaw ceased. The big old boxelder dropped forcefully to the earth, its space to be occupied by a mixture of newly planted seedlings. Beth Krueger and Sue McDonald proceeded to limb and buck the tree. Steve Tillmann was a terrific skidder, while Steve Stenger, whose talents would compare to any experienced hauler, was an expert at carefully navigating the yellow Ryder truck through the woods. This was the start of the 1989 - 90 season for the Society of American Foresters University of Minnesota Student Chapter.

The Student Chapter participated in a community service project at Wood Lake Nature Center in Richfield, Minnesota, where members cleared nearly 20 cords of boxelder from a senescent stand. Much of the wood was later utilized in a firewood sales fundraising effort. The cleared site was planted with a mixture of hardwood species. The crew was able to gain some experience in chainsaw use and tree felling, and participated in a saw safety meeting. Coordinated efforts and hard work paid off, as the project was very successful.

Elections were held in April of 1989, resulting in the appointment of the following illustrious (notorious?) individuals: Erik Petersen, Chair; Steve Johnson, Assistant chair; Nancy Howells, Secretary; and Barb Burke, Treasurer. Later in the year, Doug Magee and Dave Haugen were elected Membership Co-chairs.

Later in the spring, the Minnesota Southern Chapter of the Society of American Foresters and the Student Chapter coordinated to sponsor Dr. Carter Gibb to speak about the Yellowstone Park fires of the summer before. Dr. Gibb is a forest fire researcher at the U. S. Forest Service Experiment Station at Ogden, Utah. The topic was relevant and his presentation was exceptional, nearly filling the Stu-

"The Student Chapter participated in a community service project at Wood Lake Nature Center in Richfield, Minnesota, where members cleared nearly 20 cords of boxelder from a senescent stand. Much of the wood was later utilized in a firewood sales fundraising effort."



SPOTTED OWL

Strix occidentalis
This rare western counterpart of the Barred Owl is identified by the horizontal barring of its underparts. The dark-eyed Flammulated Owl (p. 166) of the West is similar, but is much smaller and has short ear tufts. Common call of Spotted is suggestive of Barred Owl's, but consists of only 3 or 4 hoots.



“The trip was timely and insightful; the northern spotted owl controversy dominated much of the discussion.”

dent Center Auditorium with foresters and nonforesters alike. Prior to Dr. Gibb's presentation, Todd Anderson, John Elholm, Steve Johnson and Erik Petersen were awarded certificates of recognition by Minnesota SAF Chair Dr. Mel Baughman, for their hard work (or smooth talk) over the previous year.

“Forestry on the Frontier” was the theme for the 1989 Society of American Foresters National Convention, held September 24-26 in Spokane, Washington. The Convention was attended by Gary Fisher, Nancy Howells, Doug Magee and Erik Petersen. The trip was timely and insightful; the northern spotted owl controversy dominated much of the discussion. After dropping off their luggage at “Ed's Reel Cheep Motel”, the students took an afternoon tour of the Coeur d'Alene National Forest in northern Idaho, by car. The resources were as breathtaking as they were educational. The foursome observed “oldgrowth” timber, owl and brown bear habitat, regeneration practices and recreation opportunities. A couple of days of general sessions and working groups allowed the students insights into current forestry research, practices and problems. It also provided an opportunity to meet a number of students and professionals from around the nation, as well as potential employers. Thanks to the help of the Minnesota SAF and the Department of Forest Resources, the students were able to participate in this valuable experience.

Later in the fall, the Student Chapter hosted several foresters from Region 6 (Washington and Oregon) of the U. S. Forest Service. The topic was *Strix occidentalis caurina*, the northern spotted owl. The presentation was relevant and informative.

Winter efforts were concentrated on selling and delivering firewood. A number of speakers, trips and volunteer efforts are currently being planned for spring. The Minnesota Student Chapter of the Society of American Foresters owes its success over the last year to the number of dedicated young professionals, faculty members and State Society members who have contributed to another great year.

Foresters' Day 1990

Janet Larson

A varied menu of events and activities were offered this year during Foresters' Day weekend, February 9th and 10th. Most of the tradition of the day was maintained, while a few labor-intensive duties were changed to reduce the preparation workload for students and increase the social benefits for all.

Activities began with the annual Forestry Club awards banquet, held at McGuire's Inn, where more than forty students, faculty, and alumni participated in a rare off-campus social engagement. Mr. Don Willeke, esq., corporate lawyer, 15-year chairman of the Minnesota Shade Tree Advisory Committee, and fascinating personality, delivered the banquet speech. Among his several messages, the approaching "golden age of forestry" was key. Nine deserving Forestry Club members received scholarships from the proceeds of this year's Christmas tree sales. It was unfortunate that the recipient of the club's most prestigious award was not able to attend the banquet. So that he may receive the recognition he deserves, the award presentation is repeated here.

"Each year, the Forestry Club honors a "Forester of the Year". This is a person that we in the club or others in the community feel has made a significant contribution to Minnesota forestry. Typically, this person has been a professional forester working for a federal or local agency (outside the University), but this year we chose to honor a forester who has dedicated the past 33 years of his life to practicing forestry, research and *teaching* – a professor in the College of Natural Resources.

This professor has demonstrated an outstanding dedication to the undergraduate student experience. You could say that he has influenced forestry at the grass-roots level because he impresses students during a time in their academic lives when they're not completely certain if forestry is to be their chosen career.

"The first opportunity most students get to meet Professor Scotty Scholten is at the Itasca Field Session. You might not get to know him right away, due to the stress impact of the course demands, but it's not long before nearly every student recognizes Scotty's dedication to students, to knowledge, to research, and to people. Everyone gets to know a different Scotty. Some know the fisherman, the ex-serviceman, the plantsman, the researcher. . . but nearly everyone knows the professor whose door is always open, and who greets you with a smile, and who lives his work through people and through plants. "Please share our enthusiasm in presenting this "Forester of the Year" award to Professor Harold Scholten."

The morning after the banquet, the Forestry Club held a gratis breakfast at Manning's Cafe for anyone in the college who would like

Big Paul Bunyan with little

Bill Ganzlin



Bill Ganzlin and Mark Johnson bucking it



The evening before Foresters' Day, Don Willeke presented an engaging speech about forestry professionals, conservation practices, and the role of the natural resources manager in the future.



to attend. In the past, the faculty and students put the breakfast on together – sharing the work. Since the breakfast attendance has waned over the years, we eliminated the preparation duties and allowed everyone to be served their choice of breakfast. The change in format was well received.

Traditional Foresters' Day competitions were held on the athletic field west of Green Hall. All activities took place under the watchful eye of Paul Bunyan. Participants and spectators alike sported their 1990 Foresters' Day buttons designed by Barbara Burke. I'm told that particular items of the day should be recorded for posterity. A certain spectator observed that Mark Johnson tosses pulp bolts like toothpicks and that Steve Lund delivered himself a remarkable wallop during the rope pull. Sue McDonald had a gathering of support to cheer her efforts in the tobacco spitting competition, since she'd become quite a celebrity at Conclave last fall.

Not unlike Conclave, Foresters' Day closed with a dance. The traditional bean feed was substituted with pizza from Domino's with no objection. Al Lundstrom demonstrated one of his many talents by providing a spectacular evening of light and sound. Maybe entertainment should be his business instead of urban forestry! Only a small, intimate group of about 35 people enjoyed the music and refreshments of the evening despite the increased dance publicity this year.

The weekend was a success once again, and Paul Bunyan was packed away for another year.



Forestry Club Tree Lot 1989

Erin Kathleen Sutter

It was the best of times and it was the worst of times. Still, I wouldn't change it for the world, and would willingly do it again. That is how I see the 1989 Forestry Club Christmas Tree Lot. This was my first year at the lot but I plunged into the job of Co-chairperson with Todd Anderson, assisted by numerous other "chairpersons" of the quarter and sixteenth degree. It wasn't the overwhelming job which I was afraid it would be. When you can divide the work, it goes much better. Hey, that sounds like "a spoonful of sugar helps the medicine go down". The tree lot is kind of a weird place. You can have the worst day, 20 below weather, a zillion customers while you are the only one working. You curse the place and swear on your Textbook of Dendrology that you'll leave the place and never come back the minute other workers arrive. Then suddenly "who to your wondering eyes should appear, it's Dave Haugen and eight tiny reindeer", I mean workers. It may not be Santa himself but they all make you smile and soon you're ready to stay all night. That is not the scenario every day, and even when the bad things happened we overcame them with grace. (Except we never did find that disappearing tree.)

I know that the best of times outnumber the worst every time. This was my first real opportunity to meet "y'all", since I haven't been to Conclave or Itasca, the other two places where a lot of friendships are made. I might have known you from F-club meetings or seen you

Bailing trees at the Tree Cut

Back row: Jeff Knutson, Todd

Anderson, Dan Kenitz

Front row: Wil Nelson, Erin

Sutter, Barbara Burke

**Steve Stenger and Erin Sutter
helping a customer at the
Christmas Tree Lot.**



in the student lounge. Still, I can't help but wonder what it would have been like if I hadn't worked at the tree lot. I would have missed the chance to work with many great people. What will the tree lot be like next year? I know it will be different. Maybe it will be better and maybe worse. It definitely is the people that make the tree lot good or bad. This year we had a lot of help from the Fisheries and Wildlife Club and the SAF Student Chapter and I would like to thank both of them. I also would like to thank all of the Forestry Club members who worked. I think we did a great job of recruiting workers this year so that more people could become involved. I plead to all of you who graduated this year to come back and help. You know the tree lot is like a drug. Once you work there you'll never want to leave. (I could only hope.) You can reminisce, and, if you miss being in college, you'll feel like you never left. It makes me sad when I think of the number of my friends who are leaving. For me, they are role models. That probably sounds like a cliché but I want to say that you have all taught me a lot and I hope that I can follow in your footsteps.

The tree lot did well this year. We were able to give out many scholarships to Forestry Club members. I hesitate to mention everyone who helped make that possible because I may leave someone out. So I will just thank everyone (with all this thanking, it is beginning to sound like an Academy Award speech or something). I also encourage everyone to help next year, especially the faculty. May the years be good to y'all "and may all your Christmasses be white."

**"Then suddenly 'who to your
wondering eyes should ap-
pear, it's Dave Haugen and
eight tiny reindeer,' I mean
workers."**

◀ ◀

College of Natural Resources

Scholarship Recipients

The College and Departmental Scholarship Committees have awarded the following 1989-1990 scholarships:

1989 DAYTON KIRKHAM SCHOLARSHIP RECIPIENTS

MICHAEL BREHM

High School: Abbott Pennings High School

Location: Green Bay, WI

Proposed Major: Forest Resources

JAY BREZINKA

Previous School: University of Wisconsin-River Falls

Location: River Falls, WI

Proposed Major: Fisheries & Wildlife

SUSAN CINDRIC

Previous School: Norfolk State University

Location: Norfolk, VA

Proposed Major: Urban Forestry

LISA GRUDZINSKI

High School: Verona High School

Location: Verona, WI

Proposed Major: Forest Resources

GARY HEASER

High School: John Johnson High School

Location: St. Paul, MN

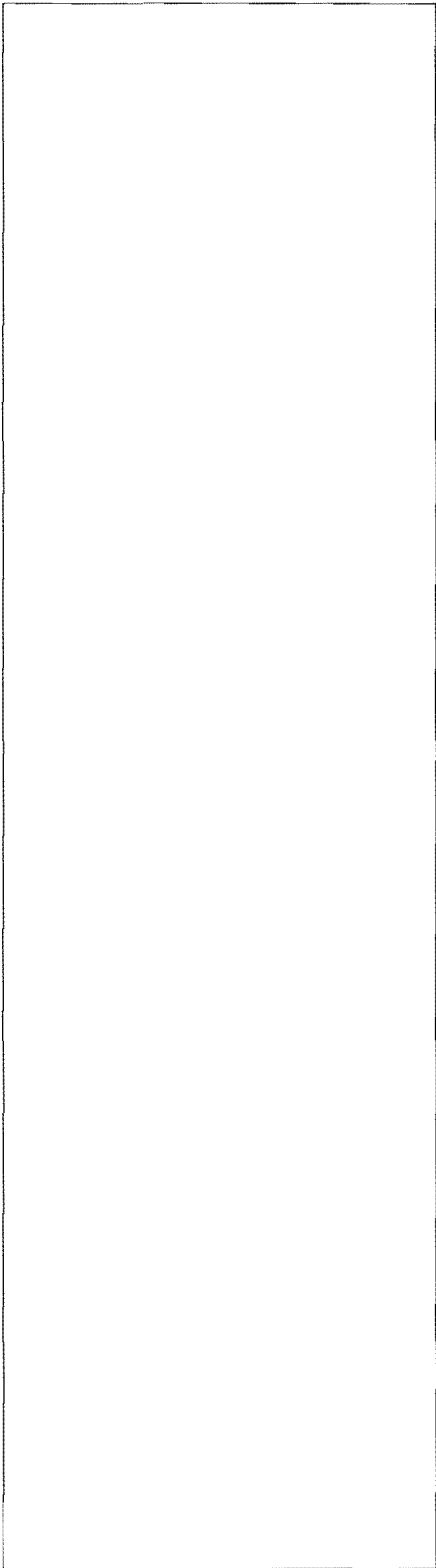
Proposed Major: Recreation Resource Management

JENNIFER MENKEN

High School: Minneapolis South High School

Location: Minneapolis, MN

Proposed Major: Fisheries & Wildlife



JOHN ALLISON SCHOLARSHIP

Erik Petersen

ANDERSON CORPORATION

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Kurt Dalquist

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Tom Berg

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BOISE CASCADE SCHOLARSHIP

Richard Dunkley

Todd Anderson

John J. Kroll

R. M. BROWN SCHOLARSHIP

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CAROLIND SCHOLARSHIP

Elizabeth Bourne

Lara Gens

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Timothy Mack

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CONSOLIDATED PAPERS

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Steven Mullen

Michael Smith

Michael Johnson

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Patrick Malecha
Tony Teichert
Brian Olson
Kelley Ann Anderson
Brian Collins
Elizabeth Krueger
Donald Dehn
Jay Brezinka
Christopher Lintula
Raymond Rainbolt
Kurt Waterstradt

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RALPH L. LINDGREN SCHOLARSHIP

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Steven Steiner

OSCAR MATHER SCHOLARSHIP

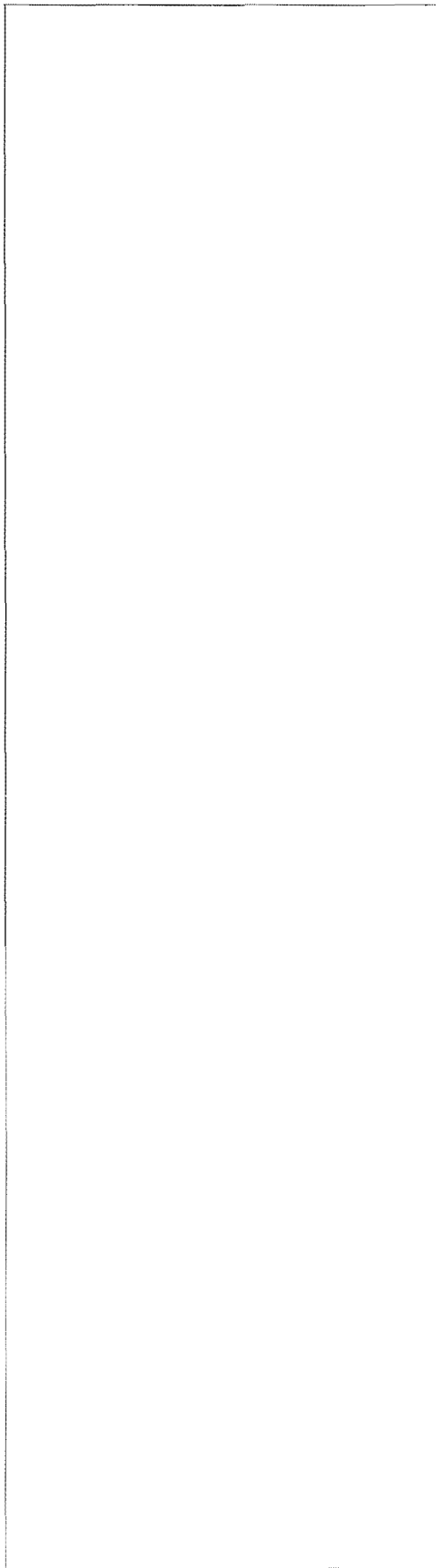
Douglas Magee

KEN MERRIAM SCHOLARSHIP

Paul Pence

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Christine Penney
Karen Terry

J. DONALD SMITH AWARD

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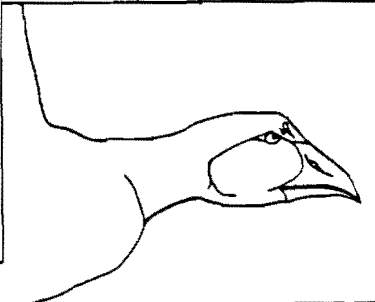
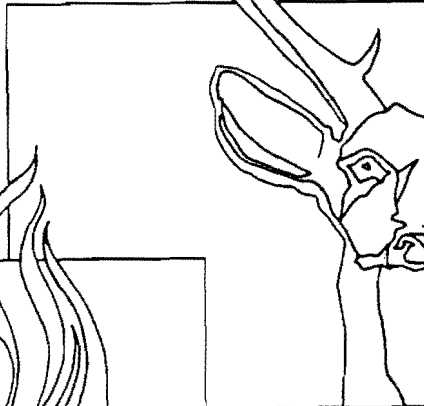
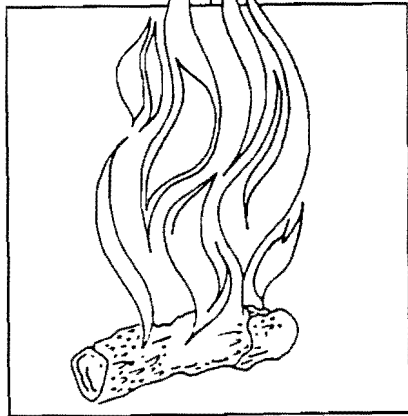
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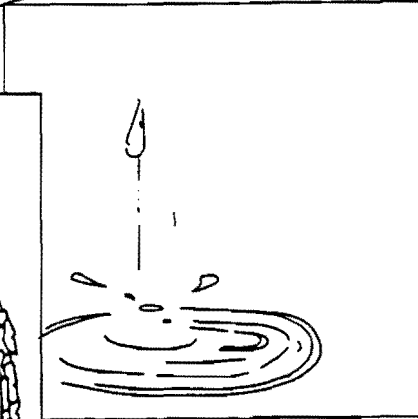
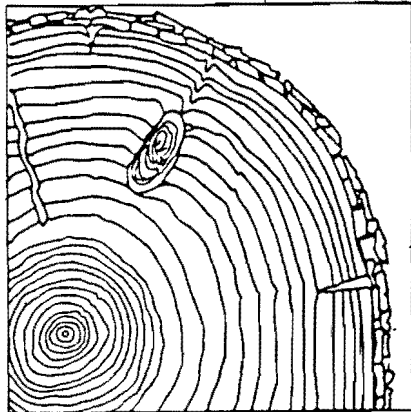


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**Society
of
American
Foresters**



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c/o College of Natural Resources; University of Minnesota
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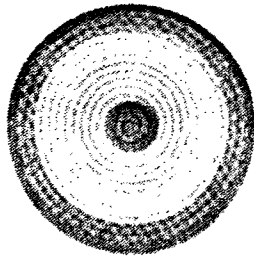


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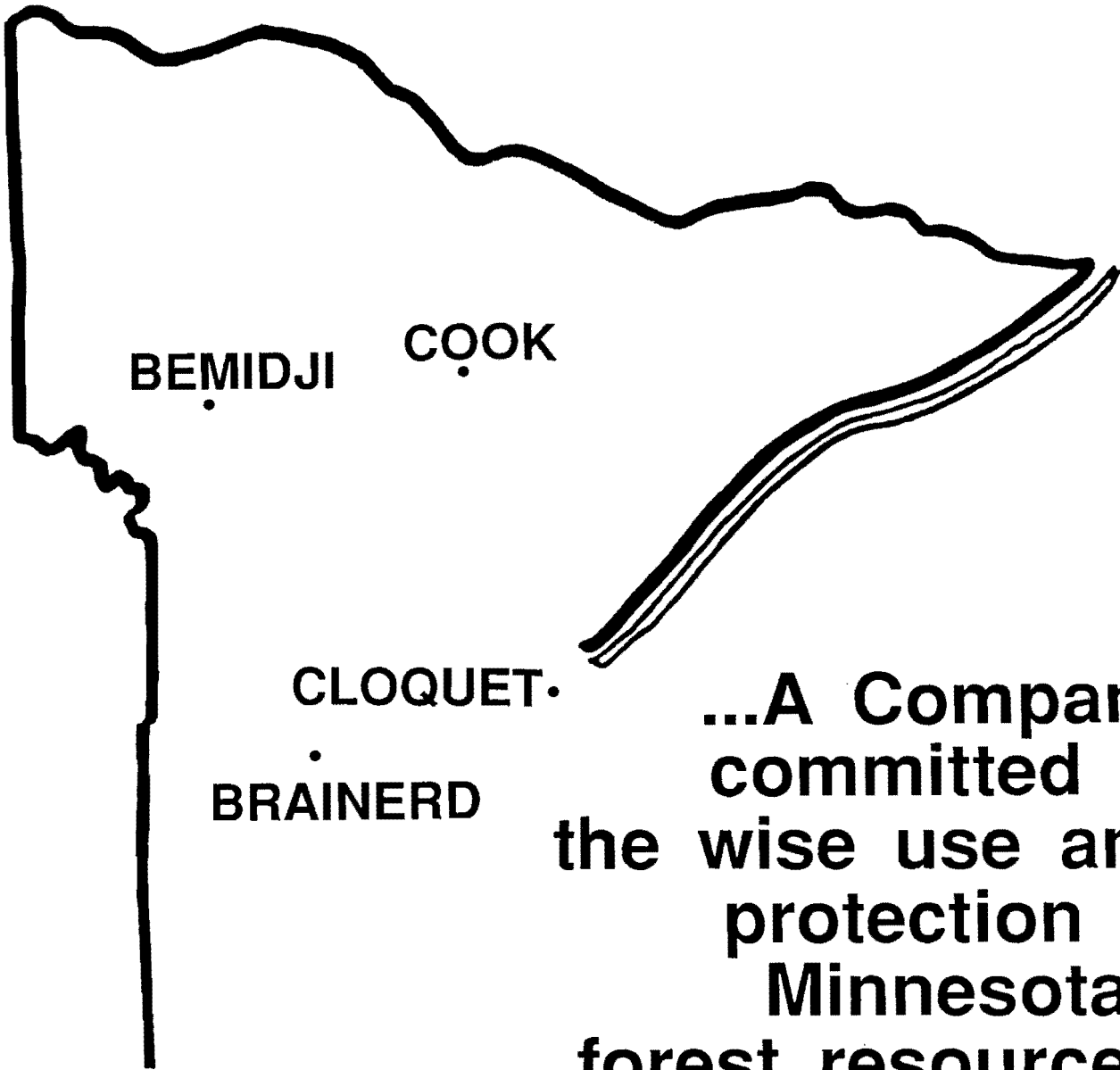
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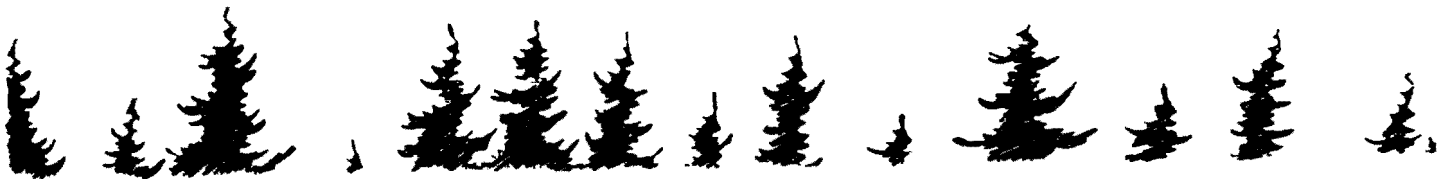
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