

# Pinetum 1981



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# **Pinetum 1981**

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Journal of the School of Forest Resources  
Forest Management—Recreation Resources Administration  
Wood Science and Technology—Pulp and Paper Technology  
N. C. STATE UNIVERSITY  
RALEIGH, NORTH CAROLINA  
Volume XLVII  
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# Thank You

*The 1981 PINETUM staff would like to thank the following people for their effort and support: Mrs. Liles, Mrs. Saylor, Darnell Johnson, Mary Walker, Jerry Sprague, and Dr. Saylor.*



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*Longer shadows fall from lofty mountains.*

*—Vergil*



# Dedication

With both pleasure and regret the 1981 Pinetum is dedicated to Mrs. Frances L. Liles, Administrative Assistant for Academic Affairs.—The pleasure stems from having the opportunity to recognize someone who has given many years of dedicated service to the School of Forest Resources in a uniquely capable style. The regret results from her decision to retire at the end of the 1981 fall semester.

At retirement Mrs. Liles will have completed 30 years of service with North Carolina State University. She came to the School of Forest Resources in 1954 as a secretary and very quickly assumed major responsibilities in academic affairs administration. Her activities in the School have been many and varied, ranging from working with admission and graduation requirements, to scheduling courses and rooms to coordinating placement.

In carrying out her responsibilities, Mrs. Liles has had to be in constant contact with individuals with a wide variety of needs, and this is where her unique talents come to the fore. As one department head stated recently:

"Her motto as shown by her performance is—*service to others*. It is a rare student, staff, faculty, alumni or visitor who is not at some time grateful to Mrs. Liles for the warmth and genuine interest she has extended them."—No matter how busy, Mrs. Liles is always available to assist, and in fact, invariably takes the initiative before being asked.

Although it is not in her nature to show favoritism, Mrs. Liles has been without question the School's "champion" of the students. Again a statement by another department head illustrates this well.

"She is for the students a source of information, advice, and support. In addition, she puts in long hours outside her regular work duties assisting with various extracurricular activities that characterize the School. She will help organize picnics and meetings, work an entire day, and show up at night or on weekends with a smile and a rum cake!"

Over the years Mrs. Liles' contributions have been recognized by students in various ways. Noteworthy examples include a special service award from the School's student honor society Xi Sigma Pi. In 1965, after having been with the School 11 years, she had her first Pinetum dedicated to her. The dedication statement for that occasion is even more meaningful at this time in that it reflects the feelings of so many more students. It stated:

"We take great pride in dedicating this issue of the Pinetum to Mrs. Frances L. Liles. Since 1954 she has been friend, counselor, advisor, and confidant to each succeeding class. Her devotion, unfailing cheerfulness, and constant concern for the solution of all student problems far beyond the limits of her professional duties earns her our heartfelt thanks and this small token of our esteem for her."



The feelings of current students illustrate that sentiment remains unchanged.

"Mrs. Liles is the best friend a student can have. Amidst the hustle and confusion of the school year there is relief and reassurance in a smiling face and a genuine concern. The sight of Mrs. Liles in the halls of Biltmore will long be remembered for she has touched many lives and brought smiles to many faces. Mrs. Liles, your service to us, the students, your friendship and guidance have been appreciated more than you will ever know. We love you and we will miss you. Thanks!"

And, so, in 1981 with best wishes for many years of enjoyment in retirement, this year's Pinetum again is dedicated to one of the School's most loved and respected members—Mrs. Frances L. Liles.



# Progress Report

by Eric L. Ellwood

The events of 1980-81 are indicative of the continuing changes taking place in our program—some of these changes by design and some a result of circumstances over which we had no control.

A sad loss was the death of the beloved Professor Emeritus T. E. (Walde) Maki on August 9, 1980. Dr. Maki will always be remembered fondly, not only as a sensitive philosopher attuned to the needs of others, but also as a superior teacher and scientist. A scholarship fund has been initiated in his name with contributions from past students, colleagues and friends.

This year has essentially drawn to a close the intensive faculty recruiting program which has been in progress over the last few years to fill the vacancies created by faculty retirements and resignations, especially in the Department of Forestry.

New faculty appointments made during the year were Dr. Siamak Khorram, Mr. Lee Allen, Mr. William Dvorak and Mr. David Harcharik in the Department of Forestry; Mr. Robert Hazel in Extension Forest Resources, and Dr. Alan Stutts in Recreation Resources Administration. Dr. Khorram's specialty is remote sensing which he will teach and research. Mr. Lee Allen will replace Dr. Russell Ballard (who transferred to the Weyerhaeuser Company) as Director of the Forest Fertilization Cooperative. Mr. Robert Hazel, the past Executive Director of the N. C. Wildlife Commission, will concentrate on the implementation of the recently signed agreement between the Commission and the Agricultural Extension Service on wildlife extension. Dr. Stutts' responsibility will be in the area of planning as it relates to recreation resources. Mr. Allen and Dr. Stutts will take up their positions in the next academic year. Dr. Jay Hair, Associate Professor of Zoology and Forestry, and coordinator of the Wildlife and Fisheries Program (conducted jointly between the Schools of Agriculture and Life Sciences and Forest Resources) has accepted the highly prestigious position of Executive Vice President of the National Wildlife Federation and will take up that position on May 1, thus creating a vacancy in that joint program.

An administrative change was the appointment of Dr. Mike Levi as Specialist In-Charge of Extension Forest Resources with Leon Harkins, who occupied that position, resuming the role of extension specialist. Thanks are due to Professor Harkins for his effective work as program leader over the past four years, particularly in encouraging the development of county initiatives in forestry.

New developments include our increased activity on the international front. The fifth industry-school cooperative research program, and the first one with an international orientation, was established during the year. This Central America and Mexico Coniferous Resources Cooperative (CAMCORE) was founded to collect and preserve disappearing gene resources as well and help improve proven species and develop additional species for use by forest industry in the tropics. The program director is Mr. William Dvorak. Also under a grant from the U. S. Forest Service, Mr. David Harcharik was appointed as a Research Associate to review

and develop programs relating to the Agency for International Development mission in forestry. These international programs also complement our participation in UNIFOR (Universities for International Forestry)—a six-university consortium with the objectives of assisting in the development and utilization of wood resources in less developed countries.

In line with the U. S. Forest Service and university objective of developing a center of strength in forest economics in the Research Triangle area, Dr. Ed de Steiguer, a forest economist, was located with the School in April. His primary responsibility will be to participate in the development of the economics of private woodlots.

Another highlight was the completion of the joint School of Agriculture and Life Sciences and School of Forest Resources' Research Annex at Method. This facility which was constructed with funds obtained from the N. C. Agricultural and Forestry Foundations houses the developing overflow of research and graduate education programs in both Schools—in ours, the soil science field.

Perhaps the matter of greatest concern is the impact of a changed philosophy of resource allocation at the federal government level and the uncertainty of the level of state funding largely resulting from changes in federal policies. Nevertheless we are optimistic about the immediate future for several reasons, i.e., the increased awareness of the importance of renewable resources, as instanced by a proposed increase in federal research funding to forestry schools in 1981-82, the strength and productivity of our programs continue to engender support, and finally our financial support comes from a mix of state and federal government and private sources which softens the impact should retrenchments occur from any one source.

We look forward to further development of our programs in the coming year even though anticipated support budgets may be frugal.

The major barrier to further development of excellence is the shortage of space and facilities. Our most recent efforts to overcome this shortage and concurrently to further realize our aims was to join with other natural resource units on campus in seeking a multidisciplinary Natural Resources Center to be constructed adjacent to Biltmore Hall. This concept has been received very favorably by the administration and we are still pursuing the approach.

Enrollment is now tending to stabilize at a more manageable level after peaking in 1975. Student enrollment statistics for 1980-81 are as follows:

	Under graduate	M.S.	Ph.D.
Conservation	33		
Forestry	263	38	31
Recreation Resources			
Administration	191	43	
Pulp and Paper Science & Technology	190		
Wood Science & Technology	<u>72</u>	<u>18</u>	<u>9</u>
TOTAL	749	99	40

Degrees awarded in 1979-80 were:

Bachelor	185
Masters	21
Doctorate	<u>12</u>
TOTAL	218



Faculty recognitions during the year were as follows:

Dr. Bruce J. Zobel was the Gamma Sigma Delta 1980 International Awardee for Distinguished Service to Agriculture.

Dr. Arthur W. Cooper was installed as President of the Ecology Society of America.

Ms. Carolyn Love was appointed to the Wake County Recreation and Park Commission.

Dr. Roger Warren was elected to membership in Xi Sigma Pi and serves on the Board of Directors, Society of Park and Recreation Educators.

Dr. I. S. Goldstein was elected Fellow, International Academy of Wood Science.

Dr. Robert C. Kellison was selected to receive the Outstanding Extension Service Award.

Dr. Myron W. Kelly was selected for the NCSU Outstanding Teacher Award.

Dr. Richard J. Thomas was named President-elect of the Society of Wood Science and Technology.

Dr. Eric L. Ellwood was elected Chairman-elect of the Appalachian Section Society of American Foresters, and Rick Hamilton was elected Chairman of the N. C. Division of the Society.

Dr. T. O. Perry was awarded the Annual Stewardship Award by the N. C. Nature Conservancy.

# The Hodges Wood Products Laboratory

by R. J. Thomas, Head  
Department of Wood and Paper Science

The Wood Science and Technology program is fortunate in having one of the finest facilities of its kind in the United States. The Brandon P. Hodges Laboratory was completed in 1959 to provide facilities for undergraduate and graduate training in wood science and technology and service to the North Carolina wood using industries through research and development activities.

The laboratory is presently equipped to handle all aspects of wood processing. Primary process equipment includes a circular sawmill, short log bolter mill and a rotary veneer lathe. Two conventional dry kilns are available for drying studies. The second kiln, recently added, is an Irvington-Moore kiln for conventional and high temperature drying with a 1300 board feet capacity.

Two hot presses are available for the manufacture of composite panels such as plywood, particleboard and fiberboard. In addition the laboratory houses a wide range of industrial woodworking machines, all of which can be found in conventional wood using industries. Recent additions to the laboratory were a \$3500 Spindle Sander and Sander Wheel Shaper donated by Abrasives and Air Equipment Company, High Point, North Carolina; a set of cutting tools valued at \$12,500 from Forest City Tool Company, Hickory, North Carolina; and a double-end tenoner from Hooker

Furniture Company, Martinsville, Virginia, appraised at \$50,000. Obviously industry contributions are of great value to our program.

The laboratory working with both large and small wood products firms has completed a wide variety of industrial research projects. Some typical projects were:

- Determination of veneer cutting properties of tropical species
- Bark and dirt content of whole tree chips
- Mechanical properties of fast grown pine
- Development of air-drying techniques to prevent checking
- Evaluation of glue bonds
- Strength of furniture components
- Wood machining properties
- Wood preservation studies

One of the busiest times for the laboratory is the five week practicum for the wood science and technology undergraduate students and the students studying in the furniture manufacturing and management curriculum. This intensive, practical course is devoted to the manufacture of an item of furniture. The students perform all of the necessary processing steps including drying, dimension stock cut-up, machining, gluing, assembly and finishing operations.

*The lesson in running brooks is that motion is a great purifier and health producer. When the brook ceases to run, it soon stagnates. It keeps in touch with the great vital currents when it is in motion.*

*John Burroughs  
Time and Change*

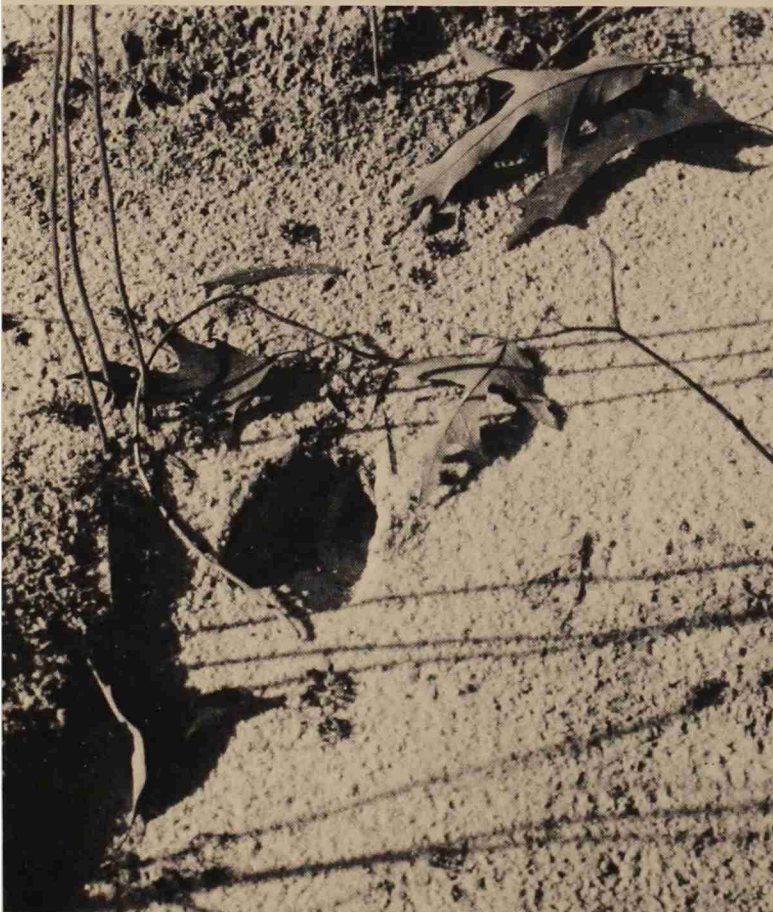


## THE SCHOOL FORESTS

by Larry Jervis

The year on the School's forest properties has been a busy one as usual. An advisory committee of faculty (Dick Lancia, Jim Gregory, Rich Braham, Don Tarbet, Bill Smith, Doug Frederick, and Bill Stanton) established in 1979 to advise the manager continues to work diligently, developing integrated multiple use plans for each property. Discussions at committee meetings are often "spirited", and integration sometimes "painful."

Sales of timber last fall produced surprisingly high prices, considering general market conditions: harvest cuttings and pine thinnings at Hill Forest brought \$135/Mbf and \$13/cord, respectively. Interest in hardwood firewood continues to increase, and this year some two dozen cutters cleared the remaining green junk from about 20 acres prior



to replanting. Such activity will probably never generate substantial net revenues because of the administrative costs involved, but does offer the possibility of using previously unmerchantable material, and perhaps accomplishing intermediate cuttings in desirable hardwood stands.

The small crawler tractor and accessories purchased by the Small Woodlot Research and Development Program last fall have proven widely applicable and useful on the forest properties. One-half mile of new road was constructed on the Hill Forest during November, and several acres were site prepared with a rolling chopper pulled by the tractor in December. Plans for its use this spring include application of nitrogen fertilizer to about 50 acres of sawtimber at Goodwin Forest, and mechanical thinning of several areas of overdense sapling stands at Hill Forest.

The student work crew did yeoman work over spring break in a logging project at the Hope Valley Forest. Designed by Bill Smith, and marked by the FOR 406 class, the cutting is part of a 5 acre demonstration of unevenaged silviculture applied to loblolly pine. Those involved gained a full appreciation of the practical and economic difficulties associated with the unevenaged silvicultural system.

Finally in other activities work is underway to ready Slocum Camp for yet another summer camp session. Projects this spring include re-roofing of the lodge and insulation of the new classroom building. Progress continues to be steady, if slow, and hopefully the forests are becoming increasingly valuable as teaching and research tools.

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## INCREASED INVOLVEMENT OF THE SCHOOL OF FOREST RESOURCES IN THE NEW FISHERIES AND WILDLIFE UNDERGRADUATE PROGRAM

by Dr. R. A. Lancia

A new undergraduate curriculum in Fisheries and Wildlife Sciences has been implemented recently at NCSU. The new program is jointly administered by the School of Forest Resources and the School of Agriculture and Life Sciences with faculty and staff residing in the Forestry and Zoology Departments. Dr. Jay D. Hair is the administrative coordinator of the program.

Students in this curriculum receive a degree in Fisheries and Wildlife Sciences with a concentration in the discipline of their choice. All students are required to take the Fisheries and Wildlife Summer Camp offered at Camp Slocum on the Hill Forest north of Durham. Dr. Richard A. Lancia directs the camp that stresses field-oriented problems in inventory and management of wildlife. Students are also required to take a course, Forest Wildlife Management, that integrates principles of forest and wildlife management.

The new wildlife curriculum demonstrates a recognition of forest-wildlife relationships as a significant portion of the field of wildlife ecology and management. A greater participation by the Forestry School in the wildlife curriculum also "rubs off" as an increased awareness of wildlife concerns when forest management plans are developed. A trend toward training students to integrate multiple benefits derived from our forests is highly desirable and should be commended.



# Wilderness

by Steven M. Black

I am writing concerning the fight going on, pro and con, over the Wilderness Act. I wanted to take this opportunity to make clear a subject that has become clouded by the internal struggles going on.

In the wilderness fight, landowners are understandably mad, and want the federal government to keep hands off land that has been in their possession for many generations. Conservationists are also understandably crying for more wilderness. They applaud the federal government for seeking to protect and preserve wild lands from the axe and commercialization. What I haven't seen is an argument that should be understood prior to everyone's wishes and desires. That argument is this: *IS WILDERNESS NEEDED*.

Note the last word—"Needed". That is the issue—the real issue before us, and we seem to have forgotten or overlooked it. Both sides can argue until they are blue in the face and miss the point of the matter. We must decide for ourselves whether we can or cannot do without wilderness.

Many people are not aware of the true concept of wilderness. Many consider it a luxury, something that is nice to have but surely not at the expense of a federal land takeover. This is a false concept. Just as we now know that clean air is a necessity for our physical health, we must understand that wilderness is a necessity for our mental health. In short, it is a place of refuge from the urban sprawl, and disease that we are faced with today. It is a place that we as people can go and be spiritually and physically renewed. We can go for RE-creation, not just recreation.

What is the magic of wilderness? What is it that can cause us to be rejuvenated and spiritually refreshed? We *know* the magic exists, but can we know why? I think so. In the wilderness we learn to put things and particularly ourselves in a proper relationship with life itself. One of America's and the world's most famous writers, Henry

David Thoreau once said:

"We need the tonic of wilderness—to wade sometimes in marshes where the bittern and the meadow-hen lurk, and hear the booming of the snipe; to smell the whispering sedge where only some wilder and more solitary fowl builds her nest, and the mink crawls with its belly close to the ground. We can never have enough of nature. We must be refreshed by the sight of inexhaustible vigor, vast and titanic features . . . We need to witness our own limits transgressed, and some life pasturing freely where we never wander."

That is the crux of the matter. We need to see our "place" in the scheme of things. It is because we haven't that accounts for the insane world suicide of pollution and destruction of the fragile, fragile balance of the world we live in.

Somewhere, somehow man got the idea that nature was to serve us as a slave. A slave that man could neglect, torture and abuse. As we have sown destruction, so shall we reap destruction. Not just ourselves, but think what a legacy man is passing on to his future generations. I understand the concept behind private property and it's inherent right to utilize that property as the owner sees fit, however, the preservation of wilderness transcends the rights of private individuals to chop and burn and lay waste a part of the earth simply because it suits them to do so.

The wilderness act must be upheld. We need more wilderness, not less if we are to survive as a stable creation. It has been said that wilderness is the preservation of the world. We must realize then that the opposite is also true. We are at a crossroads. We can choose wilderness and maintain what balance there is left or we can sacrifice the earth for the sake of the few. We are running out of time and space. We must decide for wilderness while time is still on our side.





# Job Opportunities for Graduates of SFR

## JOB PLACEMENT IN THE PULP AND PAPER CURRICULUM

by R. G. Hitchings

The search for jobs by the graduates of the pulp and paper curriculum has been made relatively easy due to the demand for new talent by the paper industry, the recognition by the industry of the need for developing new leadership and the use of well-trained personnel search persons to conduct campus interviews and organize the associated procedures of employee search techniques. During the fall and early spring of each year, from 35-40 corporate representatives schedule on-campus interviews to talk with graduating seniors and in some instances to interview prospective summer job applicants. These same corporate people may be interviewing on other campuses where pulp and paper instruction is offered as well as at 25-30 engineering schools in their search for new technical and management talent.

In the early portions of the interview season, most all of the senior job seekers attempt to interview with every corporate representative. As the season moves on, the interest starts to dwindle as some receive job offers and others "firm up" their future plans to seek additional training in technical fields or in the MBA field. As one might expect, certain seniors are identified as being the "hot prospects" and are sought after by several companies, whereas others are less eagerly pursued.

From two weeks to two months after the on-campus interviews, students are contacted by company personnel representatives to set-up times when they may visit plants and corporate offices in order to meet upper echelon management people and to meet the persons they will be working for in their "first-job". Not only is this a period for the future graduate to display their "talents", but also where the companies have an opportunity to familiarize the potential employee with pension plans, stock options, vacation programs, training opportunities and probably the most important to the student—the career development pathways of the company. This is sometimes referred to as the "winning and dining experience" since most companies go out-of-their way to entertain the student and extol the virtues of their plant, their company and their community. Needless to say, plant sites with either beaches or ski-runs close by usually receive high marks after the plant interview trip. This plant trip may also be the individual's first expense account experience.

In the period after the plant interview, the graduating senior tends to "hold his or her breath" to determine whether an offer of employment of a "flush" letter is forthcoming from the plant trip. Sometimes this period is from one to three months and is responsible for a great many chewed fingernails, and possibly a few sleepless nights. The highly sought-after job candidate may have additional problems. This individual may end up with six to seven job offers, after spending several days away from classes on plant tours, and then cannot make up his mind which offer

to take. This opportunist may be "sitting on" potential jobs which might be offered to his classmates. The conversation with this individual may be quite boring as he tries to compare the number of "hot-spots" in one city with the lack of "even one" movie theater within 40 miles of where the new graduate will live. Coin flipping, dart-throwing at the map of the United States, closeness to home and finally the convenience of travel to current boyfriend or girlfriend come into the decision-making process to select the "first job". We now find seniors wary of the telephone, they are wondering if one or two companies will "pressure" them into a decision before they are ready.

Finally, the job-hunter calls the company of his or her choice and receives congratulations of the personnel manager and then conveys his decision to close classmates. Life returns to normal with worries about quizzes, term papers, and where the next "beer-party" will be held. As others in the graduating class accept jobs, self-doubt rears its head—did I make the right choice??

The 1981 graduating class in the pulp and paper curriculum are facing an optimistic employment situation as the academic year approaches the three-quarter's mark. It would appear that the goal of 100% employed by graduating day should be met with an annual average salary of \$24,000 per year. The faculty trusts they will have a worthwhile and fruitful career.

## JOB OPPORTUNITIES IN WPS

by Myron W. Kelly

Graduates in Wood Science and Technology are found in all phases of the wood industry. This includes the more obvious placement in sawmills, plywood, particleboard, and furniture plants but also the less obvious opportunities with the large chemical companies—suppliers of glues and finishes, and with trade associations. Entry level positions are often as quality inspectors, management trainees, or in supervisory positions.

The job opportunities for 1981 graduates of the Wood Science and Technology curriculum are not as good as they were in 1978 and 1979 but are similar to 1980.

Generally the wood industry has been in a depressed state for the past couple of years, but there are some indications that improvements are possible in the near future. Additionally, if President Reagan's economic policies have the desired impact on the industrial sector, more employment opportunities can be expected, but, it is too early at the time of this writing to have a clear picture of these effects. On the other hand, the President's hiring freeze for federal employees eliminates one possible employment sector. This has little impact on BS graduates, since they have seldom taken federal jobs, but it does affect graduates with advanced degrees.



There are employment opportunities for the Wood Science and Technology graduates, even with the present depressed conditions. Last year's graduates who actively sought employment have all been placed in the industry, although in a few cases it was late summer before a job was secured. As always, the graduate with an academic record above "just getting by" has more opportunities from which to choose. This graduate will have the larger number of job offers and will be in a position to select the most financially and professionally rewarding job.

## EMPLOYMENT OUTLOOK FOR FORESTERS—1981

by Dr. Tom V. Gemmer

In a word—dismal. Job prospects for entry level foresters are at an all-time low. In past years by this time in the spring semester, we have scheduled interviews or posted notices for permanent job openings for from 10 to 15 companies and agencies. This year we have heard from only two.

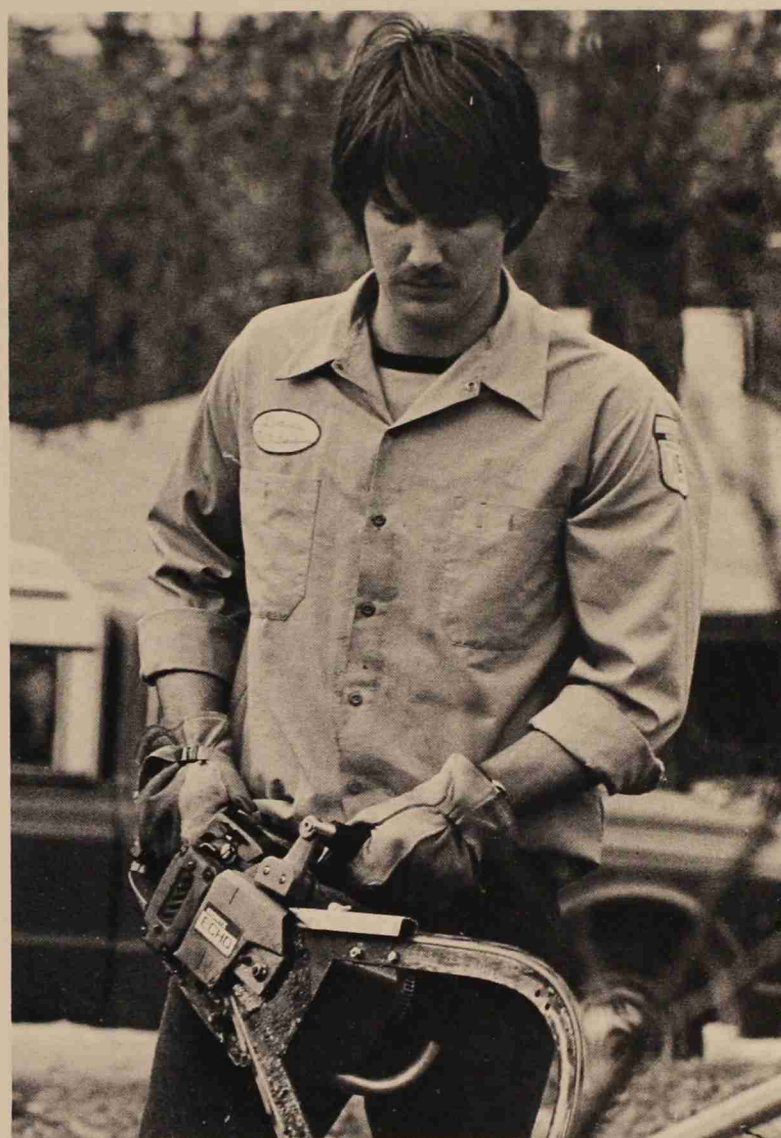
Except for a brief flurry of excitement when the federal register for professional foresters opened in the Portland, Oregon area, the U. S. Forest Service has been frozen solid for new employees. The Soil Conservation Service advertised a few openings available for which some of our seniors applied. At this point in time we do not know of their success.

Many of the corporations that came to talk to summer employee prospects used the words "not at this time" when referring to their permanent position recruiting. We hope that this indicates they are in a "wait and see" attitude. If President Reagan's policies are good for the economy—if interest rates fall, and home construction increases—then, perhaps, the employment situation for foresters will improve.

As a result of this situation, a number of seniors have decided to go to graduate school. Others are seeking temporary jobs until a permanent position opens. Most companies will not hire seniors for summer positions because of the real possibility that the employee will leave before the end of the summer to accept a permanent job.

The Peace Corps is recruiting foresters and this is a good interim solution to the employment problem. It can be a very rewarding experience and usually involves master of another language, which is always a plus. Along with the practical experience gained in the field it keeps some grits on the table until the situation improves.

The most important thing to remember is that persistence and determination are omnipotent. Nothing can beat a strong desire. If you want a job in forestry you can get one—if you try long and hard enough. We hope it is not *too* long or hard that you must try. Good luck!





## HUNTING THE ELUSIVE RECREATION JOB

by Dr. Dave Culkin  
RRA Placement Coordinator

The Bureau of Labor Statistics projects that the occupation category of "parks, recreation, and leisure workers" will be one of the ten best areas in the 80s in terms of new position vacancies. In fact, since the mid-60s, a tremendous number of new jobs have opened in the field of recreation. That's the good news.

The bad news is that about 430 park and recreation curricula around the nation are turning out graduates. Seventeen two and four year curricula exist right here in North Carolina. The obvious conclusion to this is that although a number of openings exist for recreation related jobs, the competition for those jobs is as fierce as a rugby game between State and Carolina.

The problem is exacerbated in certain areas where the job market is saturated. Probably the best example of this is the resource management area. It seems that many students dream of being the manager of a beautiful natural area (usually in the mountains or along the coast) and spending most of their time protecting the flora and fauna from uncaring foresters and crazy tourists. In truth, natural resource jobs are about as rare as Snail Garters and will probably get rarer as the Reagan administration settles in.

Don't throw away that dream, however. Several of our graduates this past year have procured highly desirable federal resource management jobs. Dozens of others are getting a wide variety of jobs in county operations, health spas, commercial establishments, museums, armed forces recreation, municipal departments and the like. There's no trick to getting a job. If you are willing to develop and actively pursue a well organized plan, your chances are reasonably good.

First of all, your job search program must incorporate an early start. Students cannot wait until six weeks before graduation and ask themselves the question, "Gee, I'd better start looking for a job soon." Although the actual "looking" may begin during the student's final semester, the preliminary preparation for the "looking" should begin during the freshman year. In other words, the things you do long before you graduate may greatly affect your ability to get a job after you graduate.

Probably the most important part of any student's job search program should be experience. For example, students who enroll in a co-op program greatly enhance their likelihood of getting a job. Past behavior is the best known predictor of future behavior. If you perform well in a co-op position, your employer knows that you will probably perform well as a full-time employee. Students interested in a co-op position should make their decision during their freshman year.

Job experience can be gained in other ways. Our required student practica are a start, but part-time jobs, summer jobs, and volunteer experiences really help. You might make more money during the summer with a non-recreation job, but the recreation job might be the better investment in the future. A number of Raleigh area leisure service organizations badly need volunteer assistance. Once again, your volunteer time may prove to be a short term sacrifice but a long term benefit.

Your efforts to gain experience will bring forth an additional reward: professional contacts. Meet professionals, find out what they do, what they talk about. The more you are around them, the more comfortable you will feel around them. Think how important this will be when you are job interviewing. Also, your personal contacts are more likely to seek you out when they're filling their full-time positions (assuming that you've made a good impression, of course). Even though your contacts may not have vacant positions when you graduate, they may be able to refer you to someone who does. Every open door has the potential of leading to a job.

Another important part of the job search program is involvement. Recreation professionals must have strong people skills. (This may come as a shock for some resource oriented students ) You'll develop those skills by getting involved. Join Recreation Club, attend the Annual Department Banquet, help organize the Recreation Internship and Summer Employment Conference, work during Career Day, join campus activities, join the student branch of the state society, attend the annual state conference. Better yet, be a leader.

The probability of getting an entry level position is increased if the student has a diverse professional background. If you've only focused on one specific area such as interpretation, planning, or programming; it may be difficult to get your proverbial "foot in the door". Once again, this is where experience and involvement can help. If you're unfamiliar with the cultural arts, volunteer to assist a cultural arts group. If you don't feel comfortable working with seniors, get a part-time position in a senior care center. It not only looks good on your resume, but it broadens your background.

Finally, don't forget to rely on the placement services offered by the RRA Department. Job announcements and job bulletins are placed on the fourth floor Biltmore bulletin board. Your advisor probably knows about job opportunities. As you approach graduation, you'll want to work closely with Placement Coordinator, myself.

Job hunting is a challenge. The current job market can make it a frustrating experience, but a well organized job search program can help. See your Placement Coordinator for further information. Good luck!



# Dean's Message to the Students

by Eric L. Ellwood

To many, "high tech" would appear to be the hope of the future which will strengthen the economy and will provide the opportunity to get America moving again in productivity, job opportunities and consequent attainment of people's expectations.

High technology, particularly microchips and their applications, is an exploding field with implications which ultimately go beyond one's extreme imagination in terms of the impacts this technology can have on manufacturing, services industries and our way of life. The recognition of the growth potential of the high wage, relatively clean, high technology and awareness of its impacts has created a strong competition amongst several of the states to seek these so-called "brains industries." Perhaps more important, there is a stepping up of competition between nations for superiority in this field.

Most of us would want the benefits of these emerging high technologies and look to the opportunities for betterment that they can create in our own particular fields.

However, it is also true but not necessarily obvious that the underlying long-term sources of wealth upon which all service industries, including many in the high tech category, is manufacturing and production of the material goods that society needs for its healthy maintenance and growth. First and foremost of these material goods are food, shelter, transportation and communication needs.

This is where forests and their products provide an all pervasive role in the contribution to the basic needs of people as distinct from the superficial needs.

The Utopian mix of enterprises a society might undertake to provide its needs with stability over the long term must put much weight on the comparative advantages that it has.

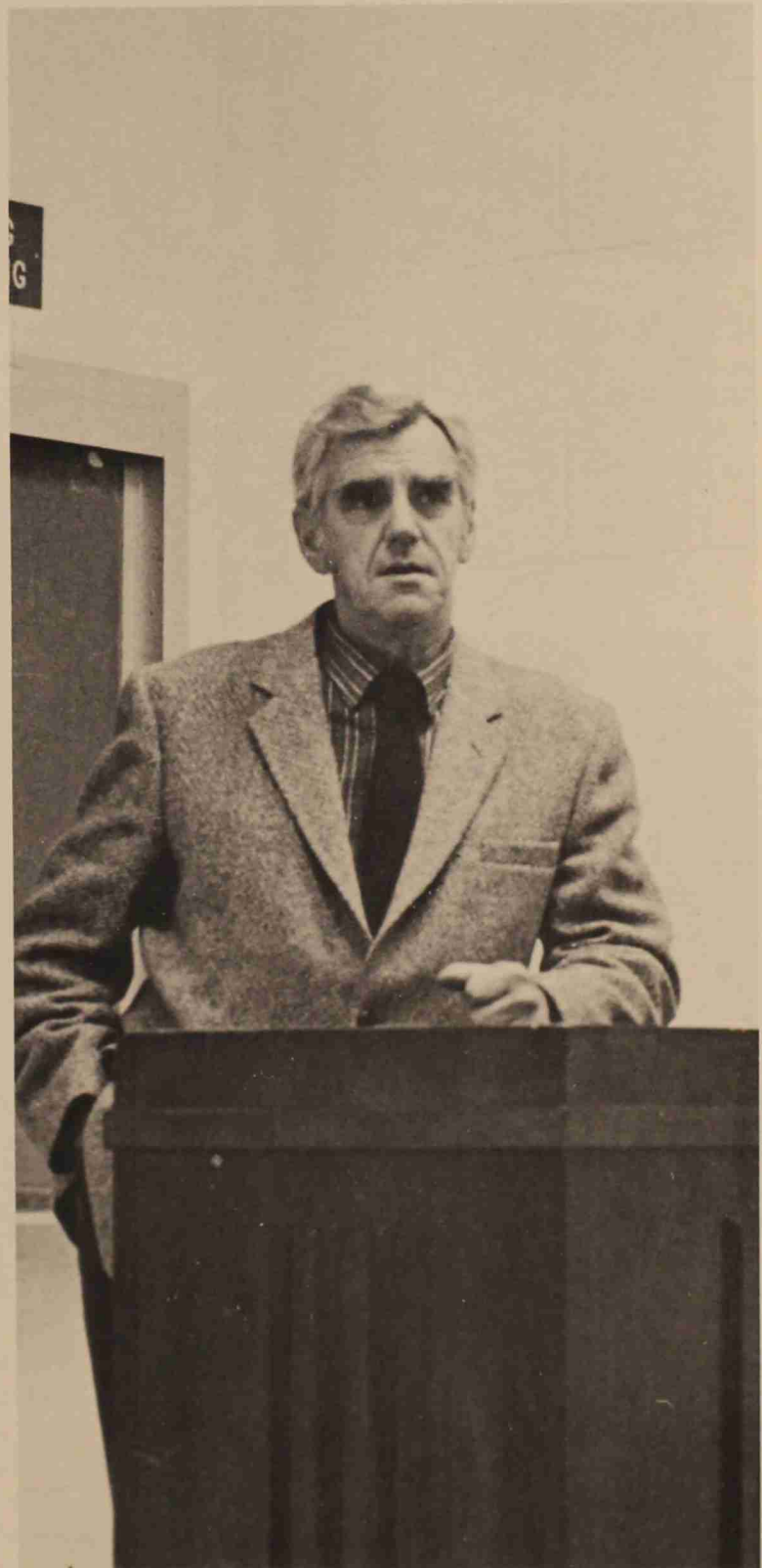
The United States has the comparative advantage of high potential wealth in its renewable resources, especially its commercial forests which rank third in acreage after the USSR and Canada but first in annual growth per acre. Even so, it is widely recognized that our United States forests are producing only half of their potential growth even compared to what could be produced even at moderate levels of management. Here is an arena therefore in which the application of high technology—such as emerging biotechnology, remote sensing and computer cartography—could substantially multiply economic returns as well as make a greater contribution to the world's increasing demand for wood. The United States could very well become the world's Arabia of wood.

On the other side of the coin are the less developed countries, particularly in the tropical zones, in which every year an area of tropical forest about the size of Oregon is destroyed primarily by slash and burn, shifting agricultural practices and by the search for wood to cook food. The consequences are major, including loss of soil fertility and desertification in some cases.

Here, the best hope in the short and intermediate future to arrest these effects is the application of an appropriate mix high technology with standard forestry technology; for

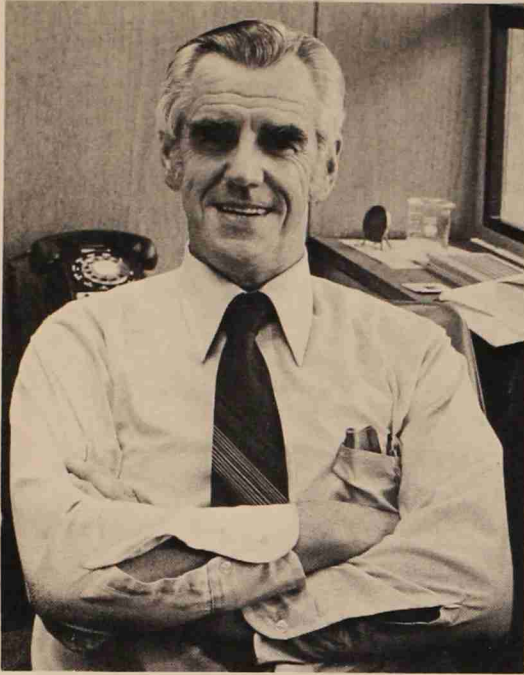
example, to utilize fast growing superior trees for reforestation which cannot only provide a source of firewood and other wood resource needs but can also build back up the fertility of the soil.

Natural resource management, whether it be for production of goods or for services, needs the application of high technology and you as graduates will be the people who will be on the frontier of its application.





# Administration



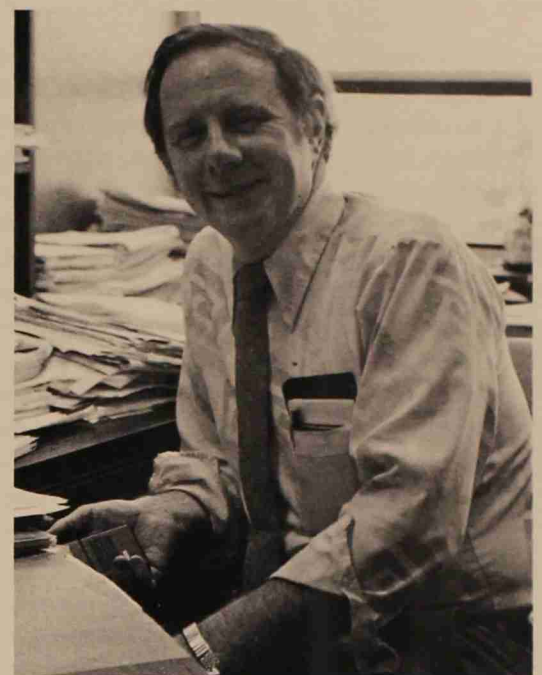
**ERIC L. ELLWOOD**

Dean, School of Forest Resources  
Professor of Wood and Paper Science  
B.S., M.S., University of Melbourne  
(Australia); Ph.D., Yale University



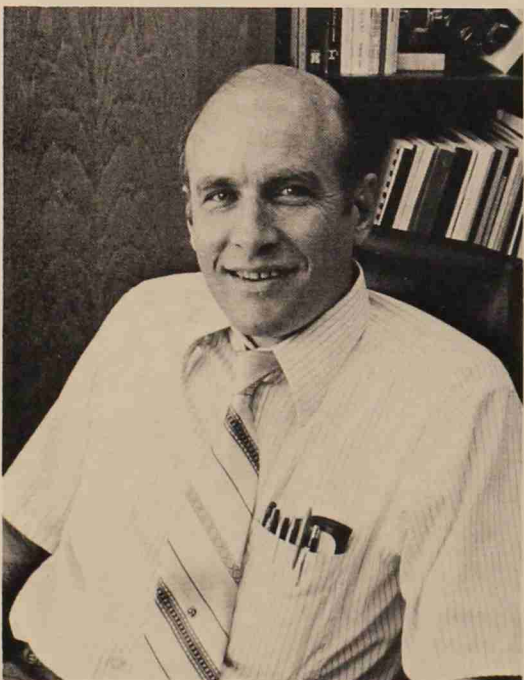
**L. C. SAYLOR**

Associate Dean, School of Forest  
Resources, Professor of Genetics and  
Forestry  
B.S., Iowa State University;  
M.S., Ph.D., N. C. State University



**ELLIS B. COWLING**

Associate Dean, In-Charge of Research,  
School of Forest Resources; Professor of  
Plant Pathology, Forestry, and Wood and  
Paper Science  
B.S., M.S., State University of New York;  
Ph.D., University of Wisconsin;  
D.Fil., University of Uppsala (Sweden)



**ARTHUR W. COOPER**

Department Head, Forestry  
B.A., M.A., Colgate University;  
Ph.D., University of Michigan



**RICHARD J. THOMAS**

Department Head, Wood and Paper Science  
Professor of Wood and Paper Science  
B.S., Penn State University;  
M.W.T., N. C. State University;  
D.F., Duke University



**M. ROGER WARREN**

Department Head, Recreation Resources  
Administration  
Professor of Recreation Resources  
Administration  
B.S., Wake Forest University;  
M.S., West Virginia University;  
Re.D., Indiana University



# Forestry Faculty



Left to right: First Row: **Bob Kellison**: Director, Hardwood Research Co-op and Associate Professor of Forestry, B.S.F., West Virginia University; M.S., Ph.D., North Carolina State University. **Rich Braham**: Teaching Technician, B.S., M.S., University of Michigan. **Art Cooper**: Head of Forestry Department, B.A., M.A., Colgate University; Ph.D., University of Michigan. **Bill Hafley**: Professor of Forestry and Statistics; B.S., Penn State University; M.F., Ph.D., North Carolina State University. **Lester Holley**: Associate Professor of Forestry, Economics, and Business, B.A., Wofford College; M.F., Ph.D., North Carolina State University. **Carlyle Franklin**: Professor, B.S., North Carolina State University; M.S., University of California, Berkeley; Ph.D., North Carolina State University. Second Row: **Floyd Bridgewater**: Associate Professor, B.S., M.S., Ph.D., Oklahoma State University. **Siamar Khorram**: Associate Professor of Forestry and Electrical Engineering, M.S., University of Tehran; Ph.D., University of California, Berkeley. **Jim Gregory**: Assistant Professor, B.S., M.S., Ph.D., North Carolina State University. **Dave Adams**: Visiting Associate Professor, B.S., M.S., Ph.D., North Carolina State University. **Dick Lancia**: Assistant Professor of Forestry and Zoology, B.S., University of Michigan; M.A., Southern Illinois University; Ph.D., University of Mass. **Steve Kalisz**: Research Associate of Forestry, B.S., M.S., University of Rhode Island; Ph.D., University of Mass. **Fred Hain**: Associate Professor of Entomology and Forestry, B.S., Stetson University; M.F., Duke University; Ph.D., Michigan State University. **John Talbert**: Liaison Geneticist, B.S., University of North Carolina; M.S., North Carolina State University. Third Row: **Jan Laarman**: Instructor, B.S., University of Michigan; M.S., M.A., University of California, Berkeley. **Tom Perry**: Professor, B.S., M.A., Ph.D., Harvard University. **Bob Weir**: Assistant Professor of Forestry, Director, Tree Improvement Co-op, B.S., University of Maine; M.S., Ph.D., North Carolina State University. **Bill Smith**: Lecturer, B.S., M.S., North Carolina State University. **Bruce Zobel**: E. F. Conger Distinguished Professor of Forestry and Professor of Forest Genetics, B.S., M.F., Ph.D., University of California, Berkeley. **Mike Kane**: Liaison Forest Soils Specialist, B.S., University of Michigan. **Bill Gardner**: Liaison Silviculturist, B.S., North Carolina State University.



# Recreation Faculty



Left to right: **Robert Sternloff**: Professor, B.S., M.S., University of Illinois; Ph.D., University of Wisconsin. **Jim Griffith**: Graduate Teaching Assistant, B.A., Vanderbilt University; M.S., University of Washington. **Sondra Kirsch**: Assistant Professor, B.S., University of Akron; M.S., University of North Carolina. **Phil Rea**: Assistant Professor, B.S., West Liberty State; M.S., State University; Re.D., Indiana University. **Hugh Devine**: Assistant Professor, B.S., M.S., Ph.D., Penn State. **Don Tarbet**: Assistant Professor, B.S., M.A., California State University; Ph.D., State University of New York. **Carol Love**: Visiting Instructor, B.S., Shaw University; M.S., North Carolina State University. **Candace Goode**: Visiting Instructor, B.S., M.S., North Carolina State University. **Dave Culkin**: Assistant Professor, B.S., M.S., University of Illinois of Urbana; Ph.D., University of Oregon. **Chrystos Siderelis**: Associate Professor, B.S., Arizona State; M.S., Ph.D., University of New Mexico.

## Librarians

Left to right: **Pamela Puryear**: Forest Resources Librarian. **Mary Warren**: Typist. **Margaret Grier**: Library Assistant.





# Pulp and Paper Technology



Left to right: **Richard Cornell**: Associate Professor, B.A., Colgate University; M.S., Ph.D., Institute of Paper Chemistry. **Heinz Olf**: Associate Professor, B.S., M.S., Ph.D., Technical University of Munich, West Germany. **Robert Hitchings**: Professor and In-Charge of Pulp and Paper Technology, B.S., New York State College of Forestry; M.F., Duke University. **Richard Thomas**: Head of Wood and Paper Science Department, B.S., Pennsylvania State University; M.W.T., North Carolina State University; D.F., Duke University. **Hou-min Chang**: Professor, B.S., National Taiwan University; M.S., Ph.D., University of Washington. **Josef Gratzl**: Ellis-Signe Olsson Professor of Pulp and Paper Science and Technology; Ph.D., University of Vienna, Austria.



## Secretarial Staff

First Row: **Lib Wilson**: Research Technician. **Debbie Johnson**: Secretary, Pulp and Paper Technology. **Julie Eldridge**: Research Technician. Second Row: **Mary Walker**: Accounting Technician. **Judy Williams**: Secretary, Forestry. **Lisa Hoftstede**: Secretary, Forestry. Third Row: **Reggi Powell**, Secretary, Recreation. **Frances Liles**: Assistant Director of Student Affairs. **Darnell Johnson**: Student Affairs Secretary. Fourth Row: **Sue Harkins**: Secretary, Forest Fertilization. **Nancy Roberts**: Administrative Assistant. **Martha Holland**: Secretary, Hardwood Co-op. **Ann Rouse**: Secretary, Recreation. Fifth Row: **Cynthia Hammond**: Research Technician. **Vernedia Hunter**: Clerk Typist. **Gloria Jones**: Secretary, Wood Science and Technology.



## Small Woodlot

Sitting: **Dennis Hazel**: Research Assistant, B.S., M.S., North Carolina State University. Left to right: **Dudley Hartel**: Research Technician, B.S., Michigan State; M.S., Clemson University. **Mark Smith**: Research Technician, B.S., North Carolina State University. **Martha Miller**: Secretary.



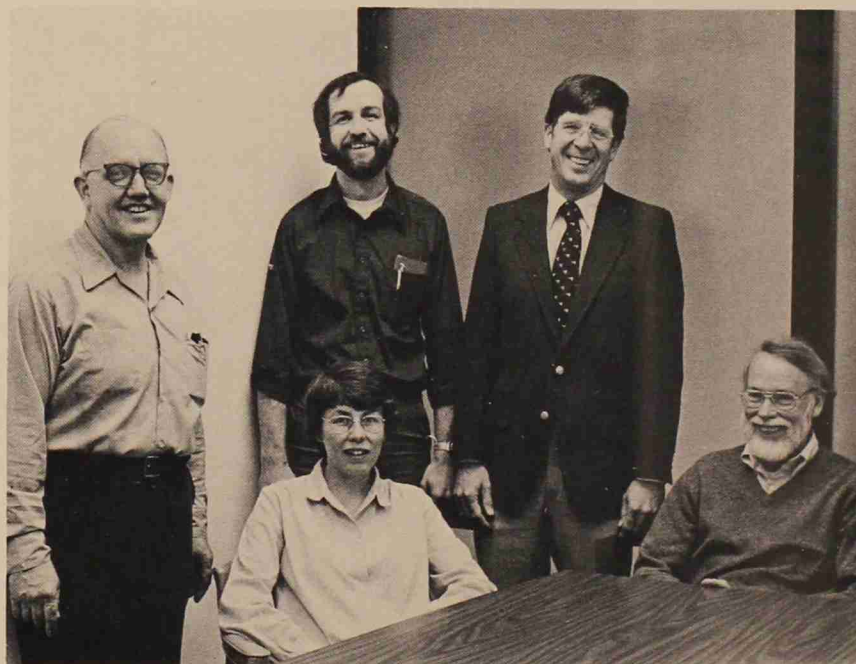
## Hardwood Cooperative

Left to right: **Martha Holland**: Secretary. **Paul Marsh**: Computer Programmer. **Vernon Johnson**: Agriculture Research Technician. **Bill Gardner**: Liaison Silviculturist, B.S., North Carolina State University. **Bob Kellison**: Director, Hardwood Research Co-op and Associate Professor of Forestry; B.S.F., West Virginia University; M.S., Ph.D., North Carolina State University. **Russ Lea**: Assistant Professor, B.S., University of Washington; Ph.D., SUNY. **Mike Williford**: Research Technician, B.S., North Carolina State University.



## Wood Science and Technology

Sitting: **Elisabeth Wheeler**: Assistant Professor of Wood and Paper Science and University Studies, B.A., Reed College; M.A., Ph.D., Southern Illinois University. **Arthur Hart**: Professor, B.S., Virginia Polytechnical Institute; M.S., Ph.D., North Carolina State University. Left to right: **Robert Gilmore**: Associate Professor, B.S., Penn State University; M.W.T., North Carolina State University. **Myron Kelly**: Associate Professor, B.S., State University of New York, Syracuse; Ph.D., North Carolina State University. **Richard Thomas**: Head of Wood and Paper Science Department, B.S., Penn State University; M.W.T., North Carolina State University; D.F., Duke University.







## Tree Improvement

Left to right: First Row: **Steve Russell**: Research Technician. **Judy Stallings**: Secretary. **Donna Miller**: Secretary. **Addie Byrd**: Research Technician. Second Row: **J. B. Jett**: Associate Director, Tree Improvement Program, B.S., M.S., University of Tennessee. **Vernon Johnson**: Agriculture Research Technician. **Jerry Sprague**: Liaison Geneticist, B.S., North Carolina State University. **Steve McKeand**: Research Assistant.



## Forestry Extension

Left to right: First Row: **Steve Hanover**: Extension Associate Professor; B.S., University of Illinois; M.F., Yale University. **Bill Swint**: Agriculture and Research Technician, B.S., North Carolina State University. **Leon Harkins**: Associate Professor, B.S., Millersville State College, M.S., Northern Illinois University. **Robert Hazel**: Extension Associate Professor, B.S., M.S., Penn State University. Second Row: **Bill Stanton**: Extension Associate Professor, B.S., M.F., North Carolina State University. **Dick Allison**: Extension Forest Research Specialist, B.S., M.F., Penn State University. Third Row: **Earl Deal**: Extension Forest Resources Specialist, B.S., North Carolina State University; M.S., University of Georgia. **Larry Jahn**: Extension Forest Resource Specialist, B.S., M.B.A., Penn State University. **Bill Huxster**: Professor, Leader, Forestry Section, Extension, B.S., M.S., North Carolina State University.



## Fertilization Cooperative

Left to right: **Steven P. Kalisz**: Research Assistant, B.S., M.S., University of Rhode Island; Ph.D., University of Mass. **Howard Duzan Jr.**: Programmer. **Sue Harkins**: Secretary. **Mike Kane**: Assistant Director, NCSFFC, B.S., University of Michigan.





*The very uprightness of the  
pines and maples asserts the ancient  
rectitude and vigor of Nature. Our  
lives need the relief of such a  
background where the pine flourishes  
and the jay still screams.*

*Henry David Thoreau*





## Seniors Not Pictured

### Forestry

David Burrett  
Charles Brooks  
Paul Campbell  
Brewster Carroll  
Terry Dalton  
Ken Gardner  
Will Mabry

### Pulp and Paper

Kathy Carter  
Eugene Dickey  
Julia Harrison  
Gregory Hedrick  
John Monteith  
Kevin Speight

### Diane Wilson

### Wood Science and Technology

Doug King  
David Pendlebury

### Conservation

George Boyette  
David Daniel  
Robert Earp  
Ashley Perry

### Recreation Resources Administration

Robin Albertson  
Robin Barefoot  
Brad Bishop

### Steven Branson

Debra Britt  
Howard Buckholz  
Angela Calos  
Richard Clark  
Thea Dean  
Janice Faulkner  
Laura Fitzpatrick  
John Hurst  
Henry McLeod  
Nancy Morton  
Michael Reaves  
Patrick Ross  
Joseph Shaw  
Jose Torres-Billoch  
Tony Vause  
Royal Windley



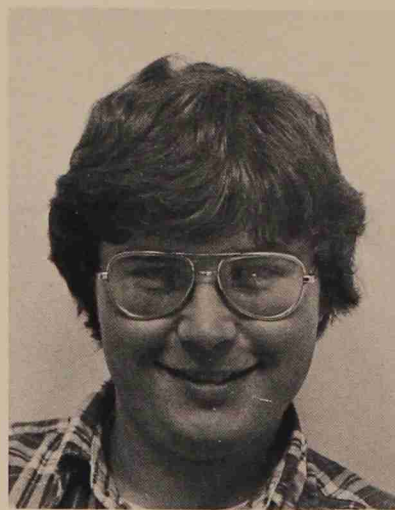
# Seniors

## Forestry

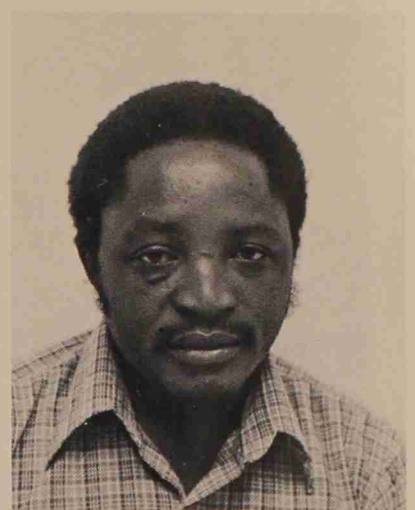
Thad Banks



Banny Becker



Michael Biss



John Bryant



Johdie Cadorette



Ken Caldwell



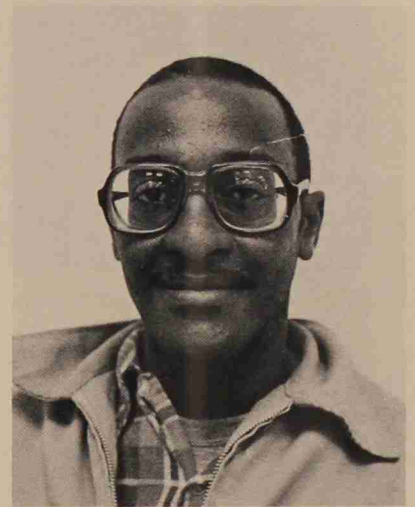
Kathy Curtis



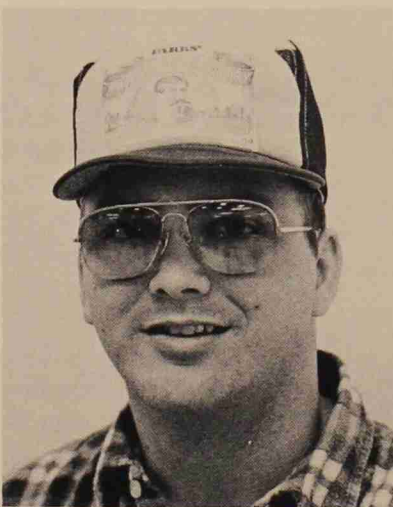
Allyson Craig



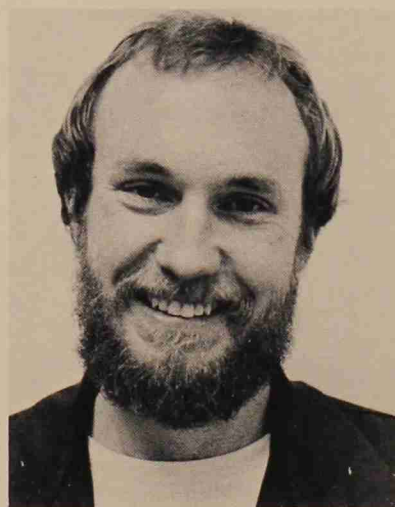
A. Hakeen Elahi



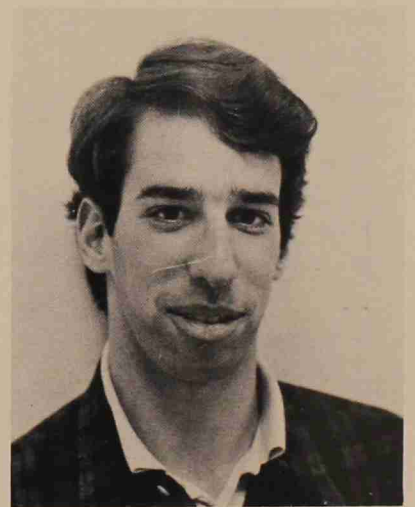
Tim Fulbright



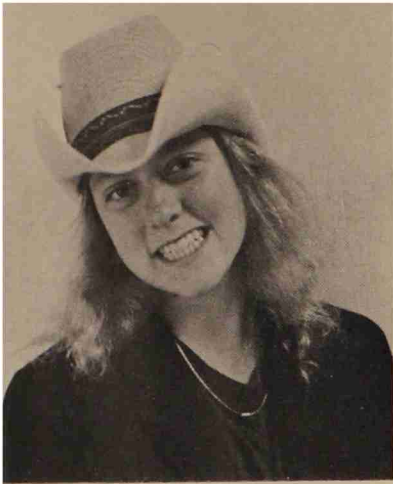
Andy Gilliam



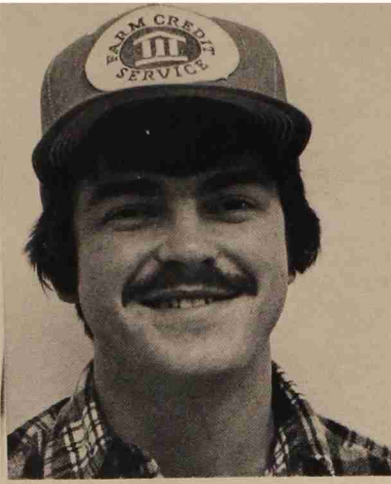
Doug Goldstein







Ruth Heidel



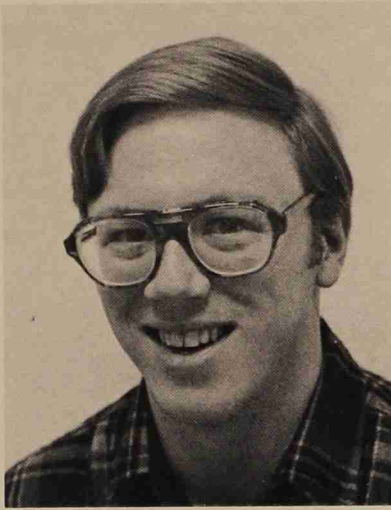
Brad Howard



Leslie Hunter



Pat Kilgannon



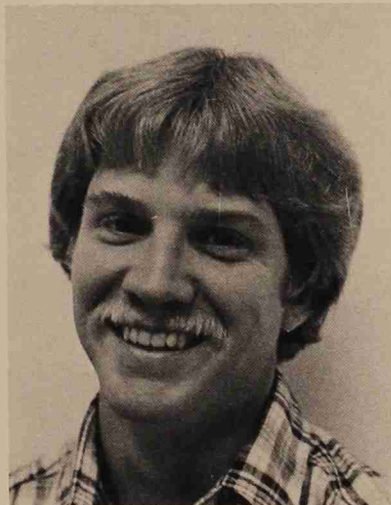
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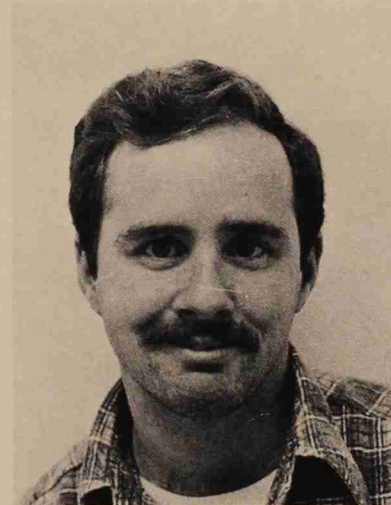
Chip Koontz



Bessie Kotsiras



Tim Mallard



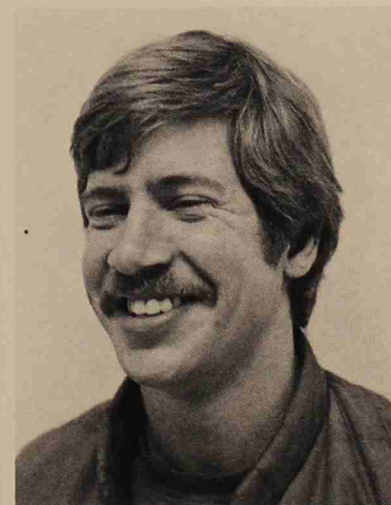
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John McBeth



Robert Miller



Dan Morgan



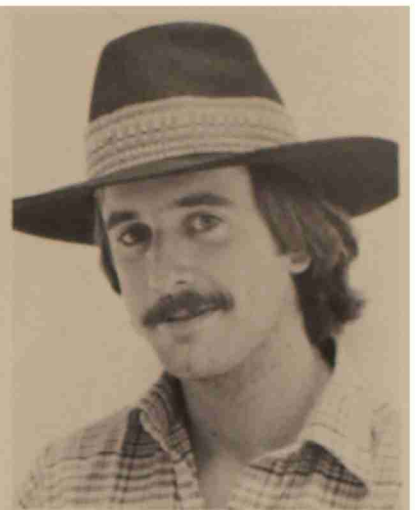
Rick Mylin



Erik Nygard



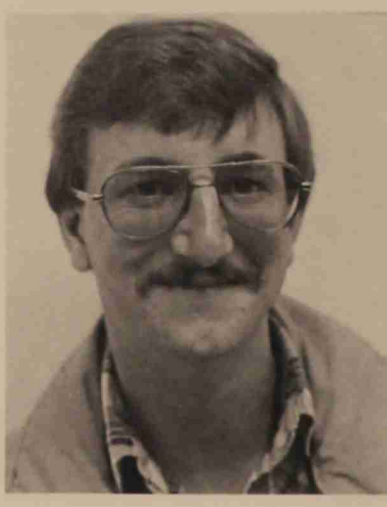
Juan Paul



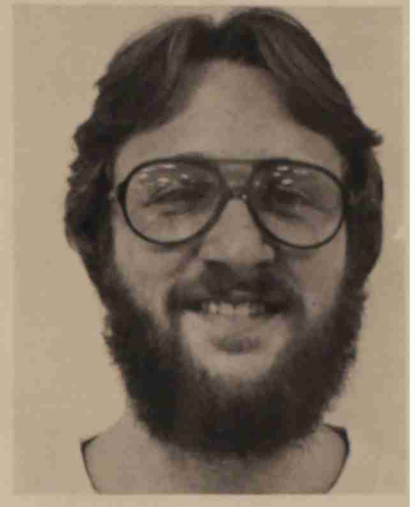
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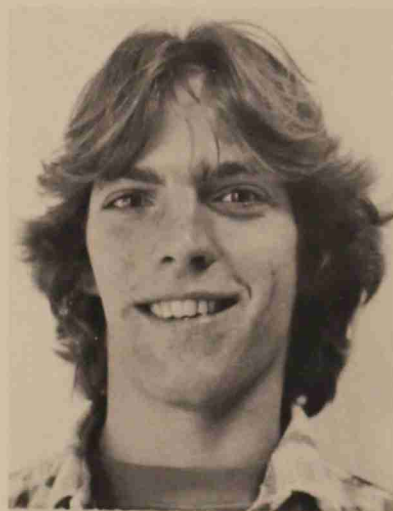
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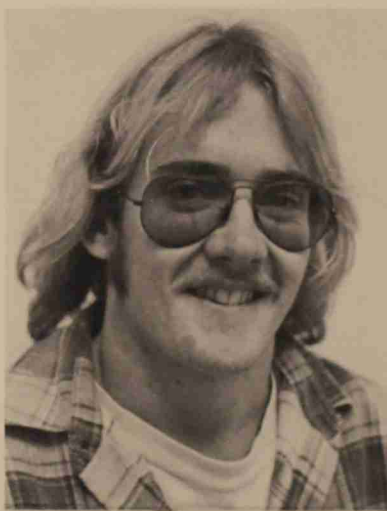
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James Rankin



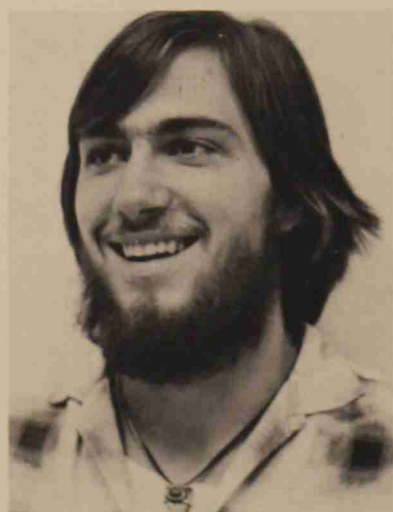
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Virginia Russell



John Rutland



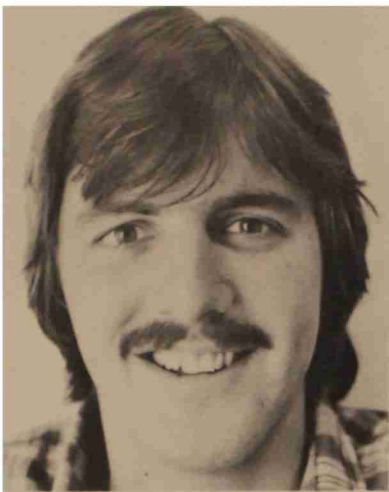
Steve Salisbury



Tim Simpson



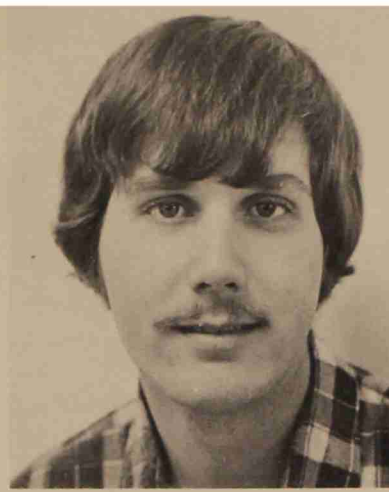




Desmond Slattery



Rhett Smith



Eddie Stoots



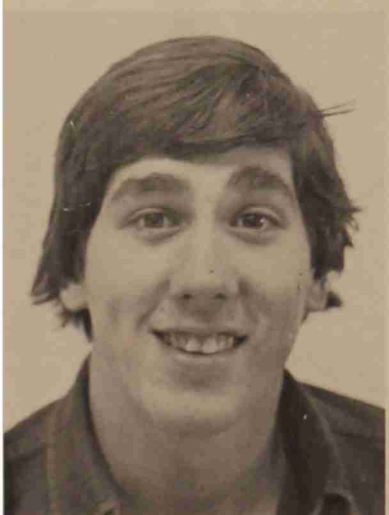
David Tew



Dan Wall



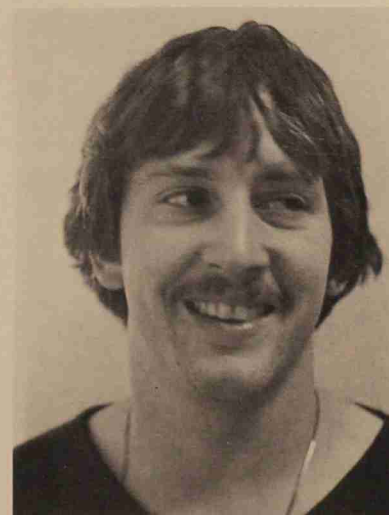
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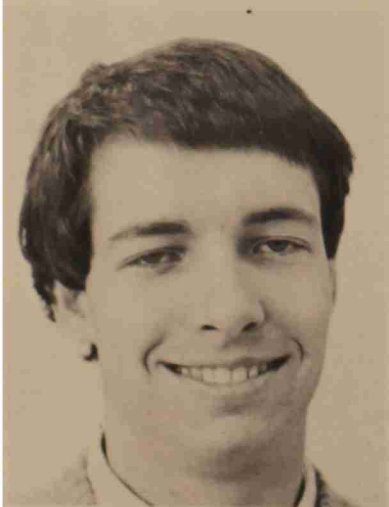
Jim Winecoff



Woody Woodruff



Eric Borda



Andy Phipps



## Pulp and Paper Technology

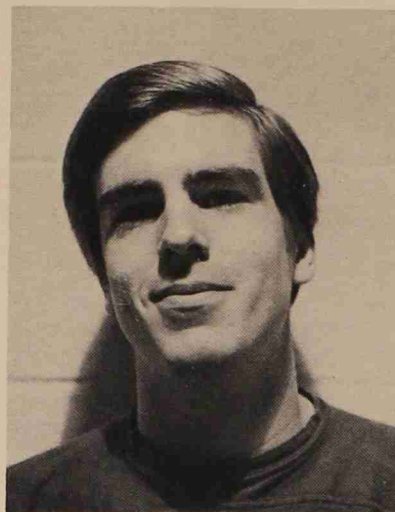
Tony Barnes



Kim Childs



Curtis Correll



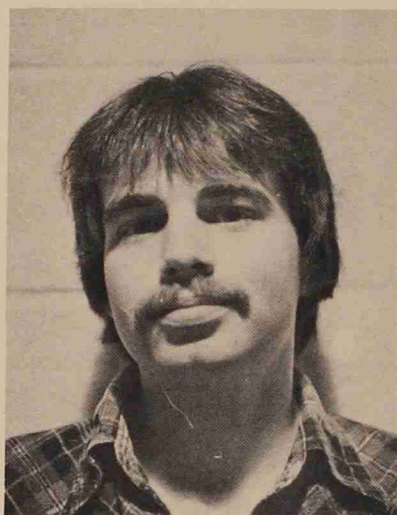
Kathy Daniels



Philip Davis



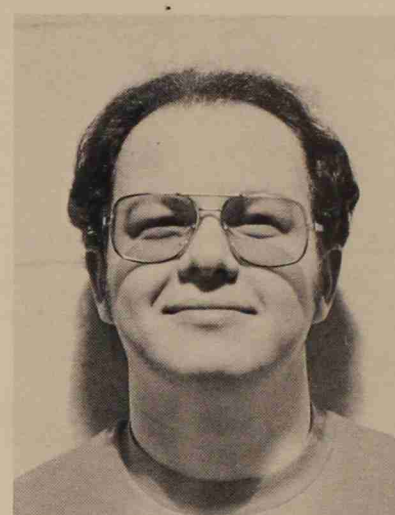
Howard Deal



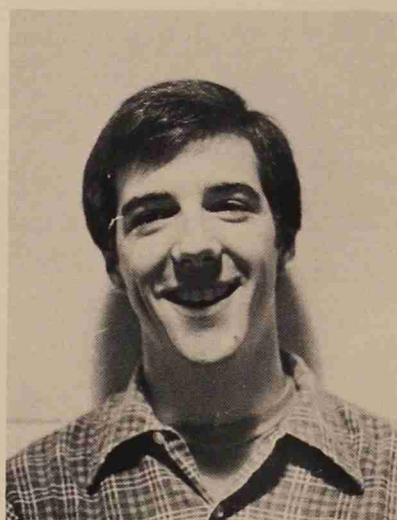
Roland Etsano



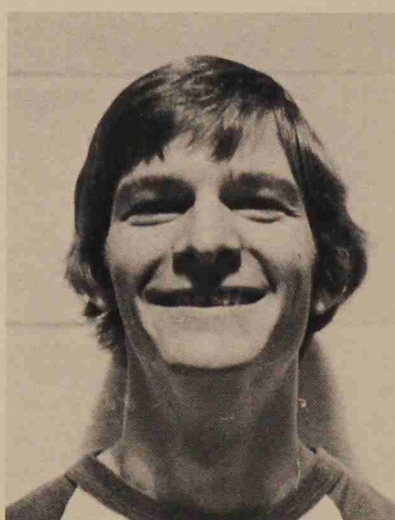
Malcom Greeson



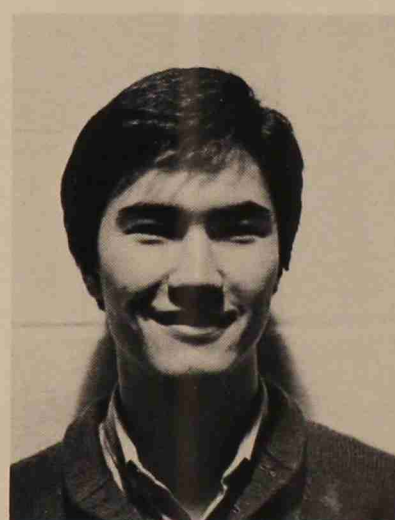
Ken Griffin



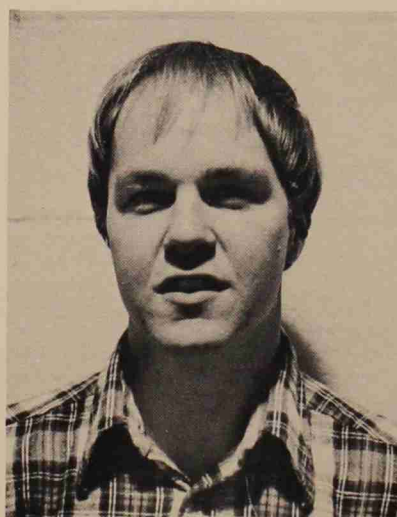
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Bill Hancock



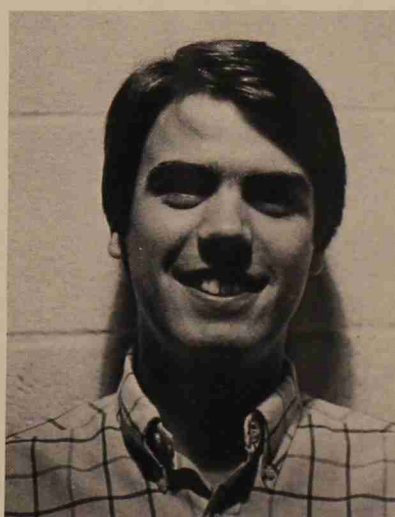
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Stewart Jackson



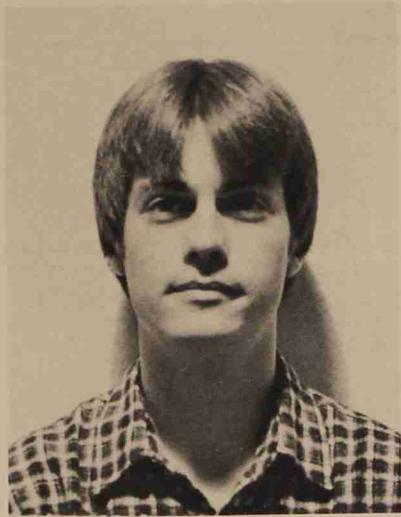
Greg Hedrick







John Monteith



Bart Nicholson



Diane Nichols



Fred Norris



Dan Post



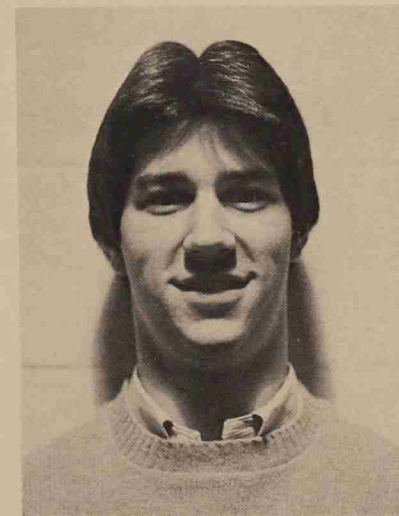
Brian Pressel



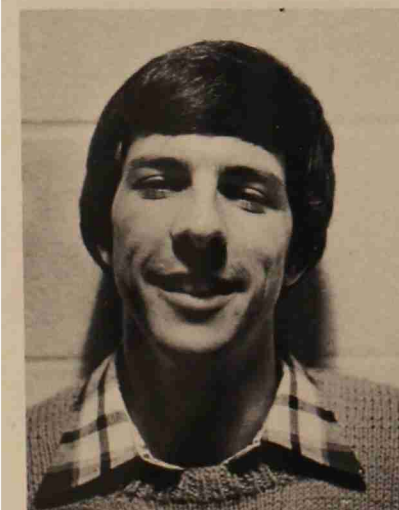
Karen Rutledge



Cliff Smith



Phil Strader



Robert Trepte



Tony Upchurch

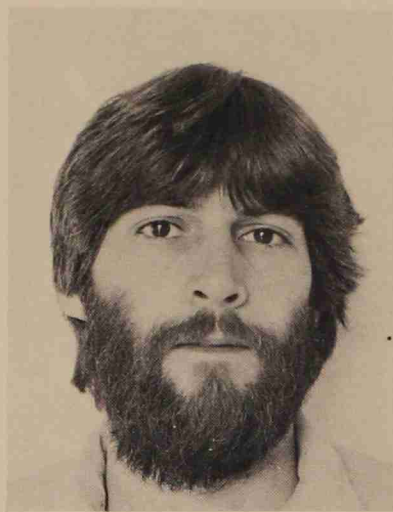


## Wood Science and Technology

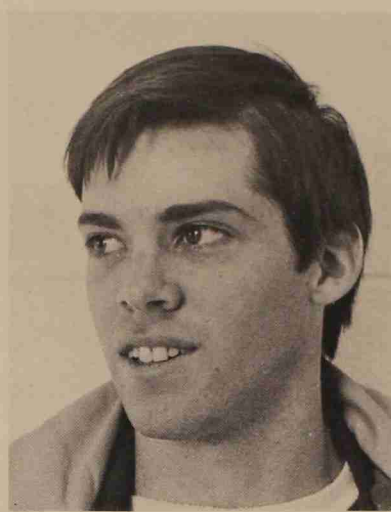
Lori Beyrle



David Cluck



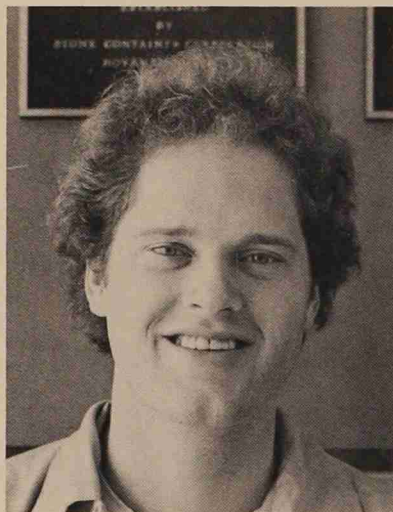
David Doyle



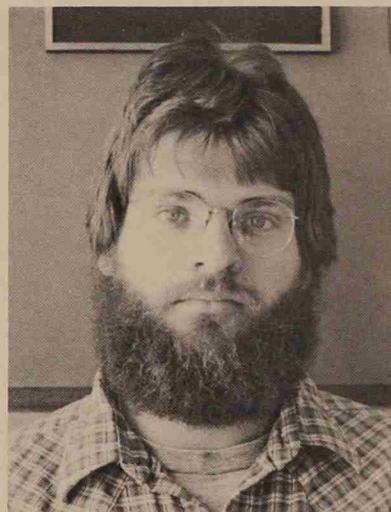
David Edmonds



Alec Laing



John MacLeod



Stan Phillips



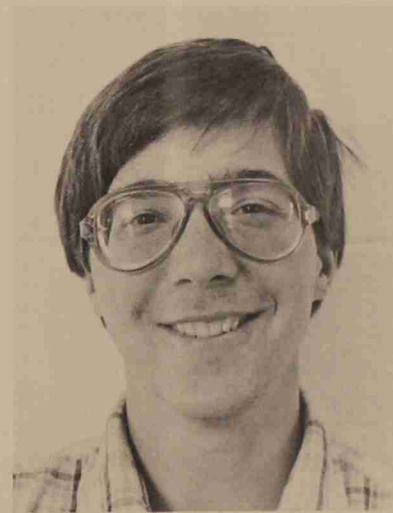
John Roberts



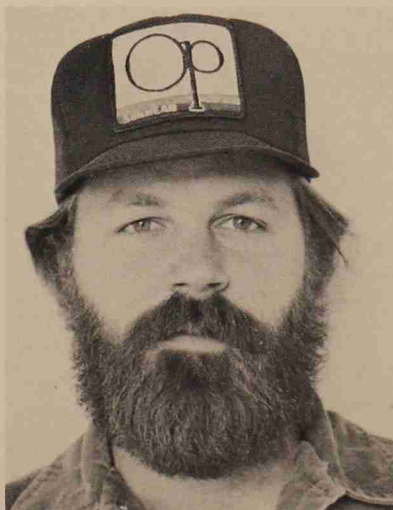
Tim Tatum



Rick Trudgeon



Joe Tschirhart



## Recreation Resources and Administration

Debbie Attomare



Sabrina Bass



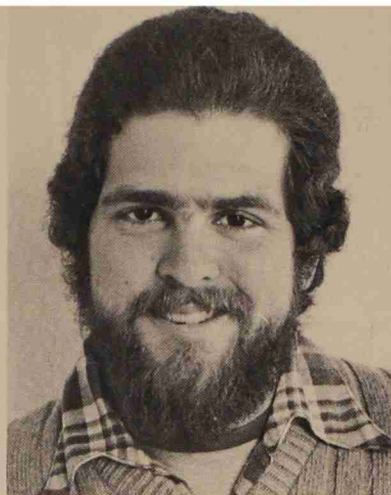




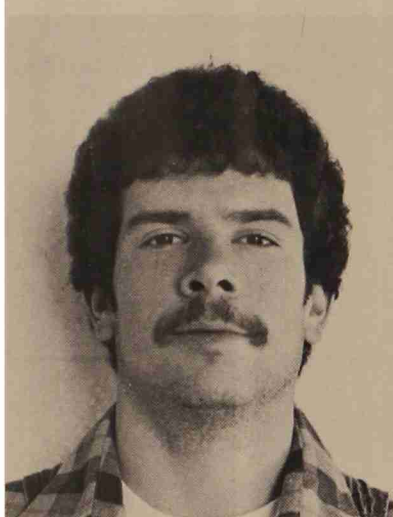
Joe Carter



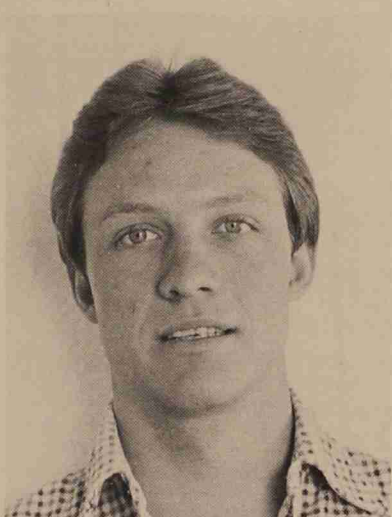
Grant Gibson



Steve Lipe



Tim McCree



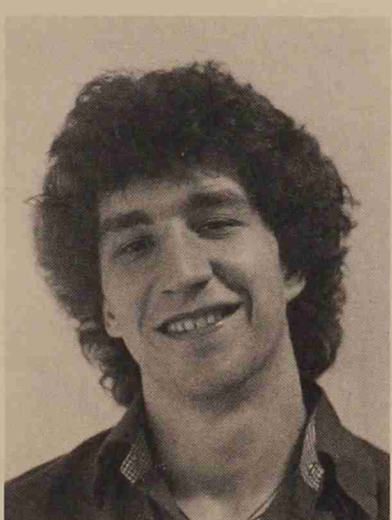
Mark Reeves



Mark Wagstaff



Mia Walter

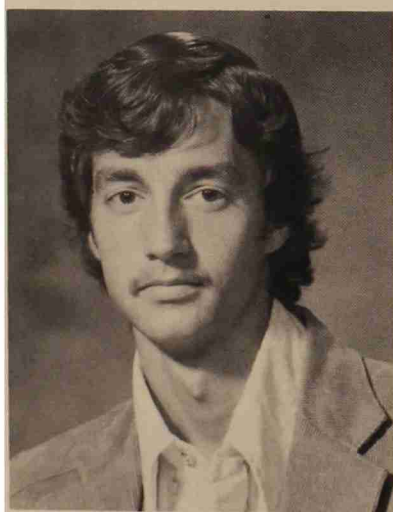


## Conservation

Gordon Gardinier



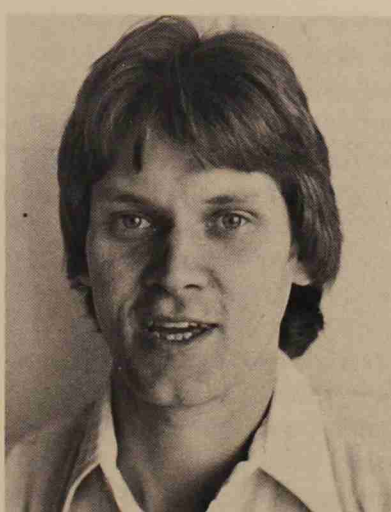
Amanda Harwell



Matt Kluger

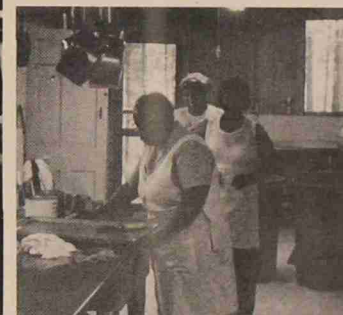
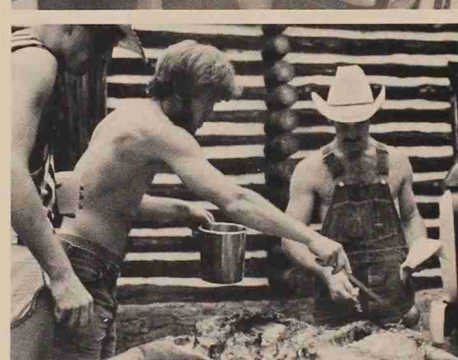
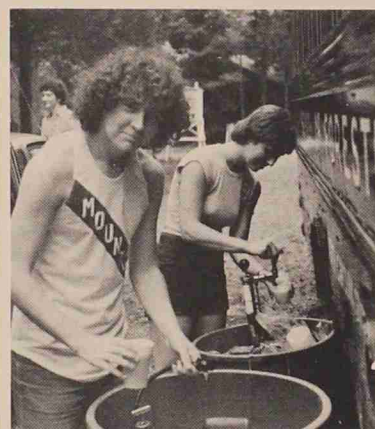
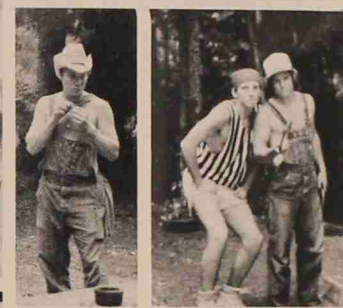
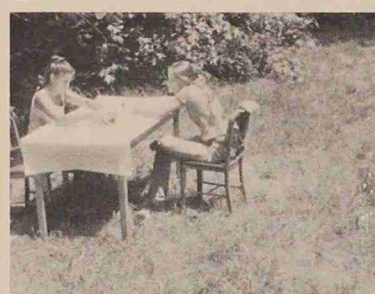
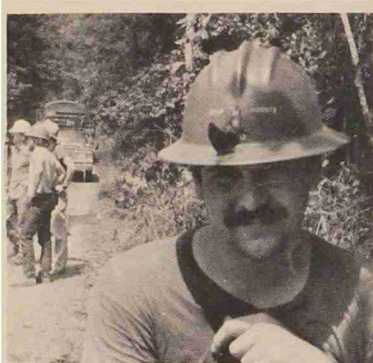
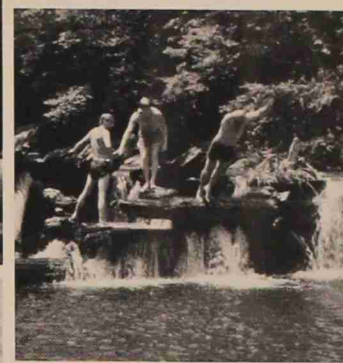
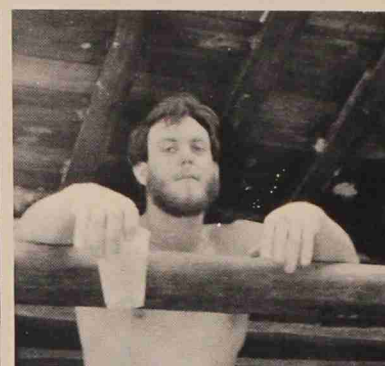
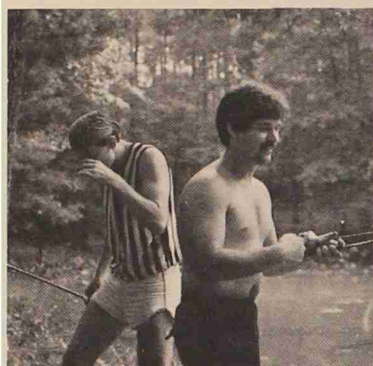
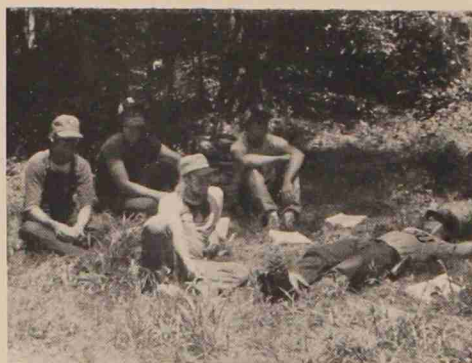
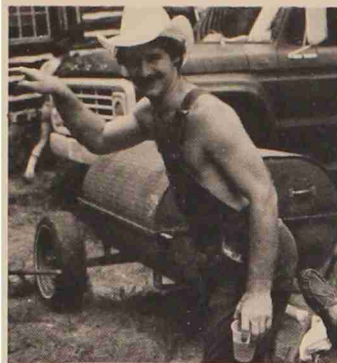


Deborah Minkin



James Moore





# Summer Camp

Even with pictures, summer camp 1980 is a hard experience to describe unless you were there. It began very peacefully in mid-May. The weather was still cool at Camp Slocum, no scum had yet covered the pond, and those of us taking up residence at camp were, as yet, uninitiated to the joys of camp life. Our first night was simple—hamburgers for dinner, followed by a leisurely evening. Even when the breakfast gong rang at 6:30 the first morning, we were not suspicious. The first full day passed easily—orientation. But, oh, that second morning, when you'd been up late the night before, was breakfast really worth getting up that early? it seemed so at first, but by the end of the ten weeks, the breakfast crew averaged about eight hardy souls.

The classes were all interesting, or rigorous, or both. We learned the basics of surveying and of entomology ("the *SCIENCE* of insects"). We spent long, but sometimes plea-

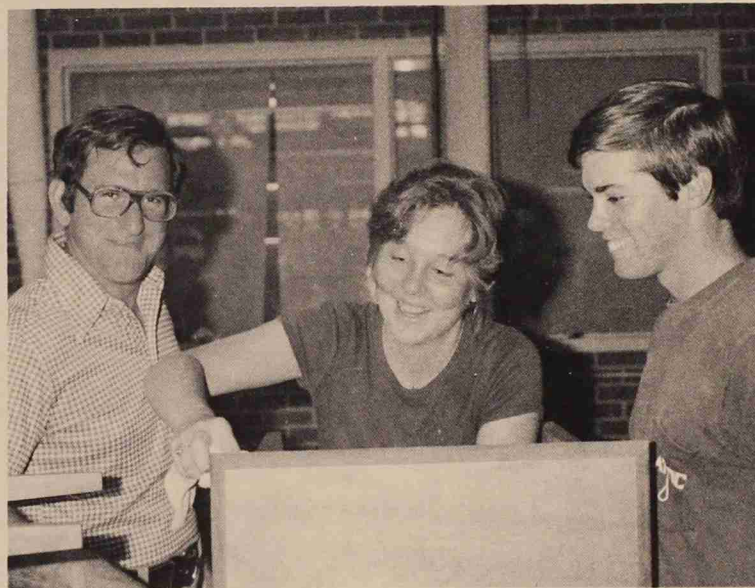
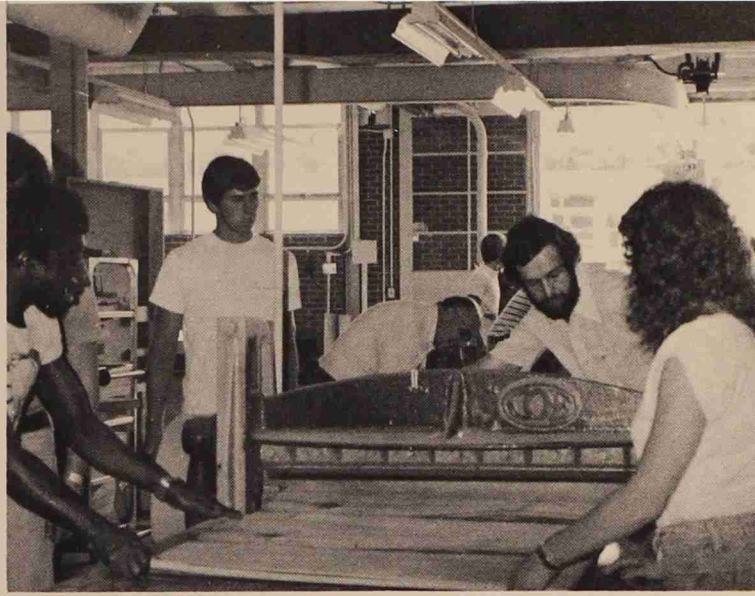
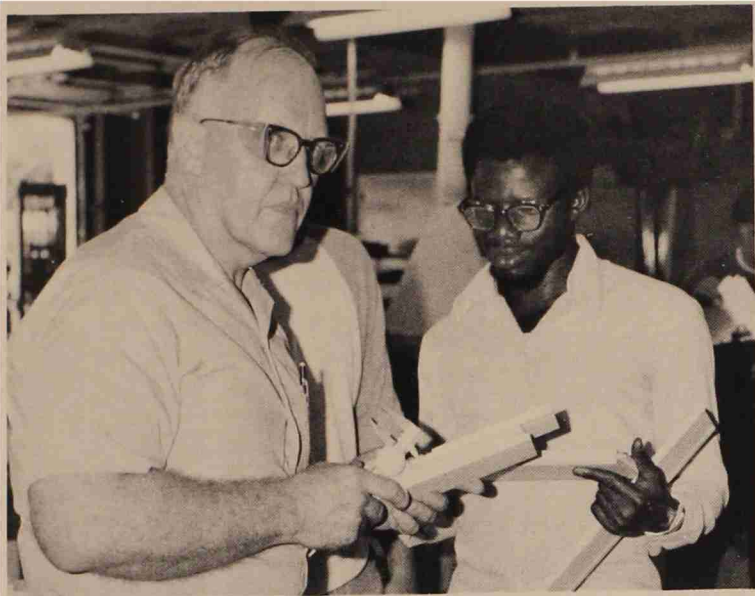
sant hours cruising insect infested forests for mensuration. There were utilization trips, dendro walks, silviculture lectures and labs, L - O - N - G hours spent making maps and volume tables, fire school with a steak dinner and a volleyball game included. Then, like the carrot at the end of the stick, we spent a wonderful week in the mountains enjoying hikes and swimming holes.

Through it all, Vivian and Helen always kept us well fed, the stewards worked hard (and never got thrown in the pond!), and the Grab Ass Bunch, Big Dog Lounge Gang, "long-hairs and wet-backs" kept us from losing our sense of humor.

And when it was over, all that relief was mixed with a little regret.

— *Johdie Cadorette*





## Summer Practicum

This year's summer practicum was a very enjoyable experience for wood science students. The five week long practicum gave the students an actual chance to see and do the processes they had heard about and studied in classes. The practicum also gave a chance for wood science students to get to know furniture students who also have to take the practicum.

As in the years past, all students build a nightstand using the machines in Hodges Wood Products Laboratory. The students spend one-half of the day studying the drying, machining, gluing, and finishing of wood. These operations include the making of veneer, particleboard, plywood, and the drying of wood at both high and low temperatures in a dry kiln. During the second half of the day, the students manufacture their nightstands using many different wood-working machines and a multistage finishing process.

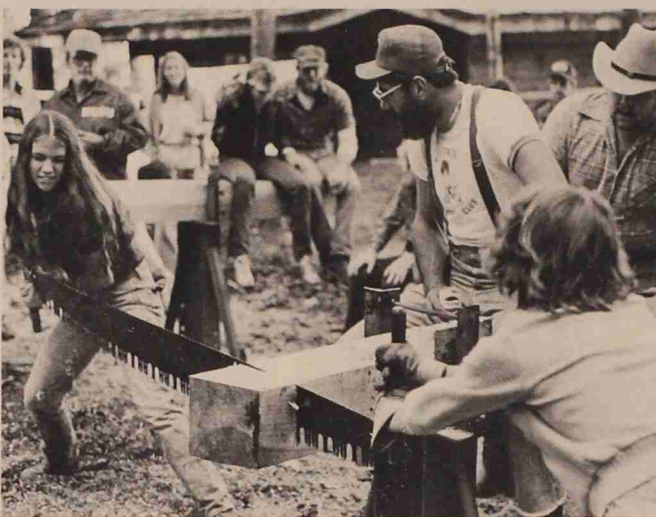
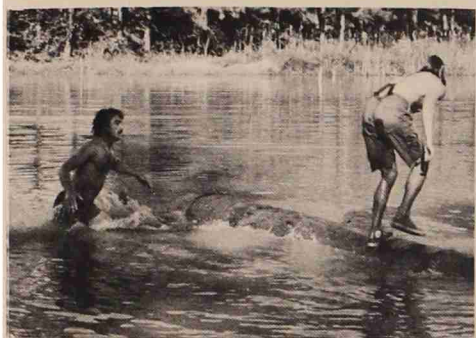
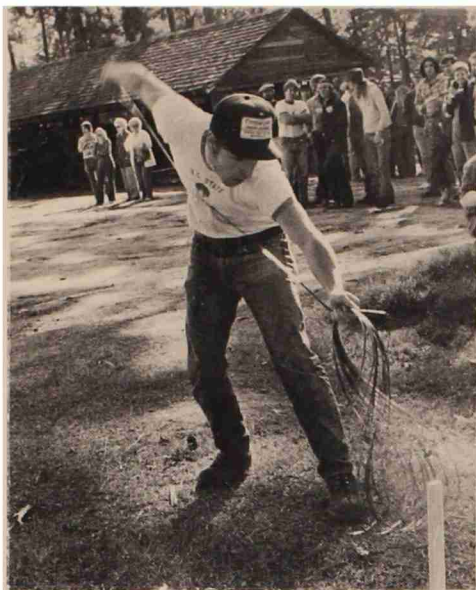
For four days, the practicum students go on furniture

plant tours. This year's tours were through several plants in Virginia: Hooker Furniture Corporation, American of Martinsville, Erath Veneer Corporation of Virginia, The Lane Company, Inc., Bassett Furniture Industries, Stanley Furniture Company, Lester Forest Products, American Standard Homes, Gravely Furniture Company, and Henry County Plywood Corporation. These tours exposed the students to many different operations in the wood science and furniture industries.

Overall, many of the students really enjoyed the practicum and learned a great deal. Steve Mim's nightstand was picked as the outstanding nightstand of the practicum. Great job, Steve! The big highlight of the five weeks was the victory of the wood science students over the furniture students in softball. The five weeks passed by quickly.

—Greg Birk





## Rolleo 1980

Rolleo 1980 was full of surprises. The first surprise came in the form of the weather. A cold, rainy, and nasty week turned into a beautifully clear and sunny Sunday in early November.

The Rolleo began predictably enough, with the seniors winning log rolling; but the juniors came right back with a win in chain throwing. Then senior John Rutland won the birling contest, only to be followed by junior "monkey-man", Marshall Hartsfields' win in pole climbing. The wins went back and forth between the two classes: the seniors won men's and women's crosscut events and pole felling, the juniors claimed victory in axe throwing, pulp toss, and with Chip Gross's phenomenal time, speed chopping. Meanwhile, both the sophomore and freshman teams put forth strong

efforts. The sophomore's Morgan led his class to victory in the bow sawing contest, and freshman woman Melanie Barrier won the knife throw for her class.

The beer went down all afternoon, and the final result was: Juniors—39, Seniors—34. A few bad breaks for the seniors and some exceptional skill from the juniors caused the upset. The outcome of the point events didn't change anyone's enthusiasm for the last two events, which were non-point. Moreland Gueth added to his many accomplishments of the day by winning the beer chugging contest, while John Eller amazed everyone with a 15' 10" tobacco spit.

—Johdie Cadorette





## 1981 Conclave

Heading out to Knoxville, Tennessee on March 26 for the 24th AFSC Conclave was a generally inexperienced Forestry Club. The 10 hours bus ride was unusually silent as members studied and touched up equipment for the weekend ahead. An air of determination and confidence was already emerging.

On a warm and beautiful Friday, the hidden talents of this quiet club started to emerge. Perhaps the most exciting victory on Friday was John Rutland's upset over Arkansas to take 1st place in log birling. Marshall Hartsfield and John Eller also received 3rd place wins in pole climbing and archery, respectively. Could it be this small laid back Forestry Club was becoming a strong contender?

Saturday, Tennessee was again blessed with another superb day of weather. Like last year our club consistently took 4th place in many of the skilled events with Tommy

Poe and Moreland Gueth excelling further by placing 3rd in men's crosscut sawing.

At the banquet dinner Saturday evening, without knowledge of the technical scores, the NCSU Forestry Club was typically quiet, but this time with anticipation. Suddenly it was announced that Jim Gemmer had done exceptionally well in timber estimation, and then pole classification! John Rutland also walked proudly up to receive a 2nd place trophy in Dendrology.

Under the leadership of Steve Whitfield, Conclave Chairman, our club had finally proven its ability and strength by capturing a 2nd place team victory out of the 16 southern universities. The outcome was further sweetened when it was announced that Arkansas only placed 4th.

What's left to say except, "we bad."



## NCSU Forestry Club

The Forestry Club, as always, has put in a busy year. The annual events started off with a "Pigpickin'" at Dr. Gemmer's place in late September. James Kerr was in charge of the event, and to quote him, "everybody ate a lot of pig" and



then he and Tim Sellers disposed of the "innards" . . . oh well.

October 4th was Open House day and the club participated in the event under the leadership of Steve Whitfield and Randy Guy.

After Open House, it was time to break loose, with the ROLLEO—1980 style. The event, under the leadership of Steve Whitfield, was a great success—especially for the Juniors. They upset the Senior team 39-34. Seniority is not necessarily synonymous with superiority.

Saturday tree jobs provided income for the club with a lot of hard work from Jerry Gaertner, Chuck Church, and Chip Gross over the course of the year. The "regulars" did a great job of keeping the club coffers full.

In March, the annual Conclave was held in Knoxville, Tennessee followed by the Logger's Brawl back in Raleigh with lots of beer and square dancing.

The club as a whole would like to extend its appreciation to advisors Dr. Gemmer, Mike Williford, Dr. Gregory, and Bill Smith for all their time and effort in making the club both fun and successful.

—Johdie Cadorette

## FPRS

The purpose of the Forest Products Research Society is to provide a technical exchange between research and industry. The North Carolina State Student Chapter of the FPRS attempts to carry out this purpose through its chap-



ter activities. The Chapter's monthly program meetings include lectures by guest speakers from the wood industry. Each year the Chapter assembles and mans a Wood Science and Technology exhibit at the University Open House. Funds for the operation of the society are obtained from the Forest Resources Council and an annual fund-raising raffle—this year's prizes being a student desk donated by Kemp Furniture Co. and a rocking chair donated by P & P Chair Co. The Chapter also provides recreational activities to enhance fellowship between the Wood Science students and their faculty. These recreational activities include an active participation in the School's intramural program and biannual picnics held each fall and spring semester. The chapter offers these programs to the Wood Science students at N. C. State in an effort to provide vital information concerning the opportunities which exist in today's wood products industry. Officers for 1980-81 were: Lori Beyrle, President; Greg Birk, Vice-President; Robert Bruncati, Treasurer; Alec Laing, Secretary; David Doyle and David Pendlebury, Program Chairmen; Dr. Elizabeth Wheeler and Mr. Robert Gilmore, Advisors.

## Xi Sigma Phi

Xi Sigma Pi is the oldest and largest international forestry honor society originating in the colleges of the United States. Mu Chapter of North Carolina State University was founded in 1940, the first chapter in the South. The purpose of the Society is to recognize and encourage ability in leadership, scholarship, and good character among students, faculty, and other exemplary persons involved in the management and utilization of the earth's forest resources.

The approximately 80 members of Mu Chapter of Xi Sigma Pi include representatives from several disciplines: Entomology, Genetics, Forestry, Recreation Resources Administration, Wood Technology, and Pulp and Paper Science.

Some of the activities that Mu Chapter participates in are the presentation of an axe to the freshman in the School





of Forest Resources with the highest grade average and the presentation of a certificate honoring the outstanding senior who has given much time and effort to school activities at North Carolina State. Also, the Society sponsors a picnic in the spring for all seniors in the School. One very important activity engaged in by our Chapter is the free tutoring

service offered to all students in Forest Resources. In addition, social events and meetings are held throughout the year for the members.

—Ronnie Hise

## Forestry Council

Effective student representation for all departments and interests within the School of Forest Resources is the responsibility of the Forest Resources Council. The Council is also in charge of the management of funds derived from student fees. The membership of the Council consists of one representative from each recognized club and honor society, the Student Body Senators representing this school, and one representative from each of the three departments within the school.

The 1980-81 Council, operating under a new constitution, has seen the completion of many projects. We have followed through with the resolution passed by the 1979-80 Council to obtain the dedication of room 2010 in Biltmore Hall to the Memory of Dr. J. W. Johnson. The Council has acquired a mailbox for the use of student organizations and placed it in the Biltmore Library. All of the councils on campus, in cooperation with the Student Body Treasurer, have obtained a fee increase for the Council system so that the councils may operate more effectively. The

Council was also able to sponsor the 1981 *Pinetum*. It has been a very productive year for the Forest Resources Council and we hope that next year will be just as good.

—Michael Thompson



## TAPPI

The North Carolina State University student chapter of the Technical Association of the Pulp and Paper Industry (TAPPI) has four major objectives:

1. Increase student's interest in the paper industry and the pulp and paper curriculum.
2. Provide social function outside of class.
3. Acquire technical knowledge.
4. Broaden industry experience and establish professional contacts.

To meet the goals set by these objectives, the group participates in many activities. Regular meetings are held every three to four weeks featuring speakers from the industry. The largest student turnout in many years attended the Virginia-Carolina TAPPI meeting in Wrightsville Beach,

North Carolina this past fall. NCSU TAPPI was represented recently in Chicago at the first meeting for all student chapter presidents from all over the United States. The group plans to continue communications with the other student groups present at the meeting.

The most exciting time of each semester is when TAPPI sponsors a picnic at Schenck Forest for PPT students and faculty. Attendance at these picnics continues to grow.

TAPPI thanks the faculty and the people in the paper industry who have all helped to make TAPPI a successful organization. We will continue improving the program to meet the needs of all PPT students!

—Diana Nichols

## Recreation Club

The Recreation Majors Club is primarily for Recreation majors but it is open to anyone who would like to join. The purpose of the club is to create, develop and promote an interest and appreciation for recreation as a profession and to promote student fellowship.

This year the Recreation Club sponsored the 2nd Annual Recreation Internship and Summer Employment Banquet and Conference (RISE). The conference helped not only juniors and seniors find internship positions but it also enabled other students to interview for summer jobs or full time employment.

The club last semester held Friday afternoon cookouts. We also challenged the faculty and graduate students to

softball games hoping to stimulate greater communication and participation with them. To generate money to hold our various activities we sold Recreation Club T-shirts and doughnuts. The last major fund-raising event this year will be a pig pickin' held on April 24.

Anyone interested in joining the Recreation Club see Dr. Dave Culkin in the Recreation Department for more information.

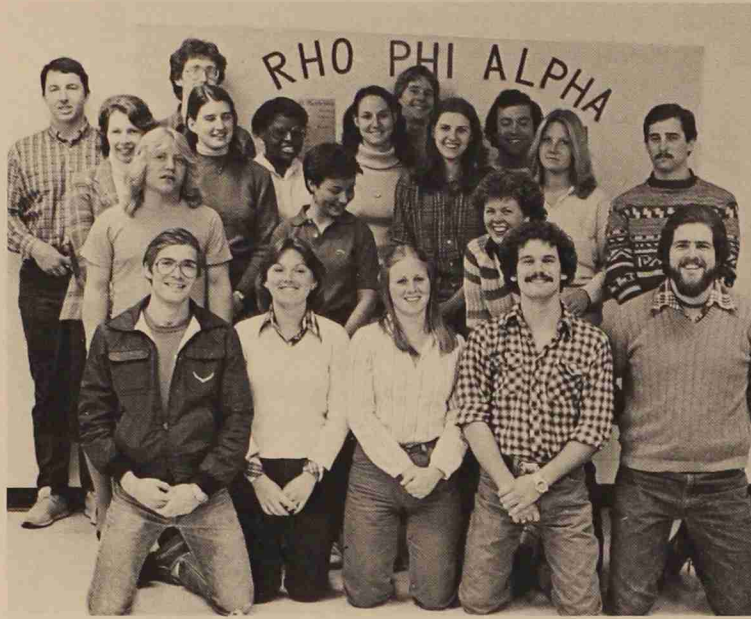
### 1980-81 Officers:

President	Mia Walter
Vice-President	Laurie Miller
Treasurer	Rick Porcello
Secretary	Susie Broughton



## Rho Phi Alpha

Rho Phi Alpha Honorary Professional Recreation Fraternity is a fraternity established by Thomas H. Hines and a group of students in 1958. The fraternity is designed to recognize, promote and encourage students of high moral



character in the field of recreation. The fraternity is also a service fraternity.

One of the biggest services the fraternity undertakes is the management of Open House for our department. Open House gives students and parents a chance to talk with our recreation faculty and students. With the help of Greensboro Parks and Recreation, an outstanding exhibit was built for Open House. Through careful planning, organization, coordination, and with the assistance of enthusiastic recreation students, Open House of 1980 was a great success.

Another big event for the fraternity is the Spring Picnic. This picnic is sponsored by Rho Phi Alpha for all recreation students, faculty and guests during the last week of classes. Planned social events such as the Spring Picnic, Christmas party, and other events are sponsored by the fraternity, or in conjunction with other organizations, in hopes that our students will be able to interact with one another more frequently.

Within the confines of the fraternity membership, we have bi-monthly meetings, two smokers, two banquets and other events. The smokers are informal dinners to introduce the pledges to the fraternity and its members. The banquets are semi-formal occasions to swear in our pledges. At present, we are initiating plans to become a national fraternity.

— Steve Branson

## SAF

The first order of business for this year's SAF Chapter was to install new officers. This year's officers were: Chair-



man—John Bryant, Vice-Chairman—Tim Fulbright, and Secretary-Treasurer—Tim Perry.

One of our members was able to attend the SAF national convention in Spokane, Washington this year. The convention's topic was land use allocation and included several field trips to the surrounding area. Highlights of the convention were a paper presented by the NCSU Forest Department Head, Dr. A. W. Cooper and a program on Mt. St. Helens.

We've had an uphill battle this year sparking new interest in the Chapter. However, with speakers lined up for each meeting, the interest has remained high. This year's topics have ranged from Phillipine Forestry, to Hydrology, to the Forest Service Research Station at the Research Triangle Park. Hopefully next year's officers will continue to generate interest with this method.

All in all, this year's SAF program has been successful.

—John Bryant

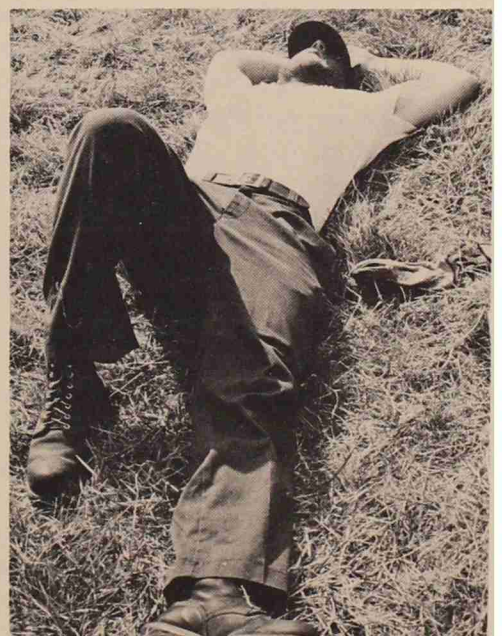
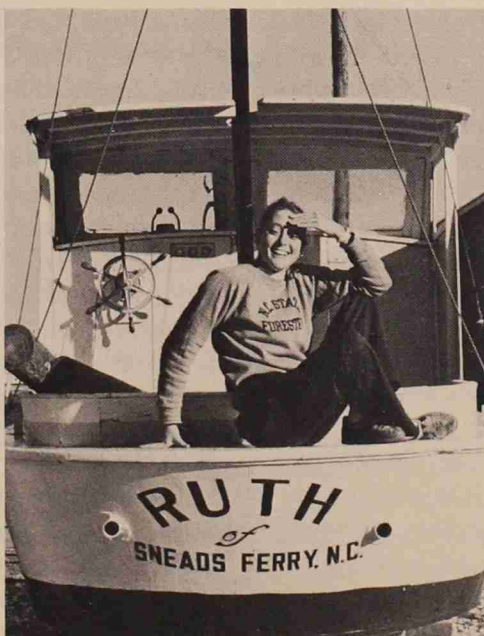
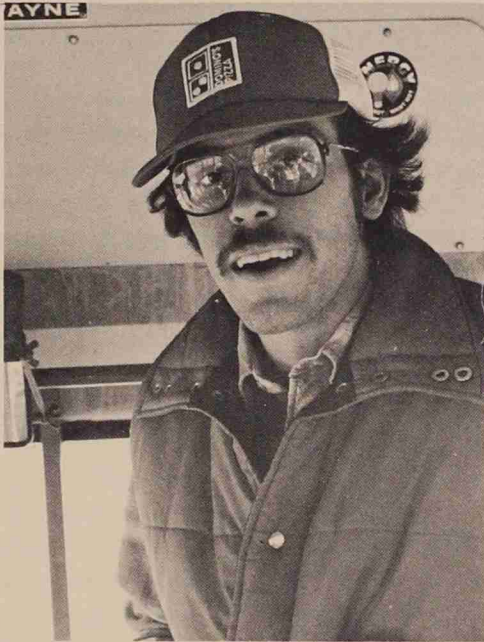
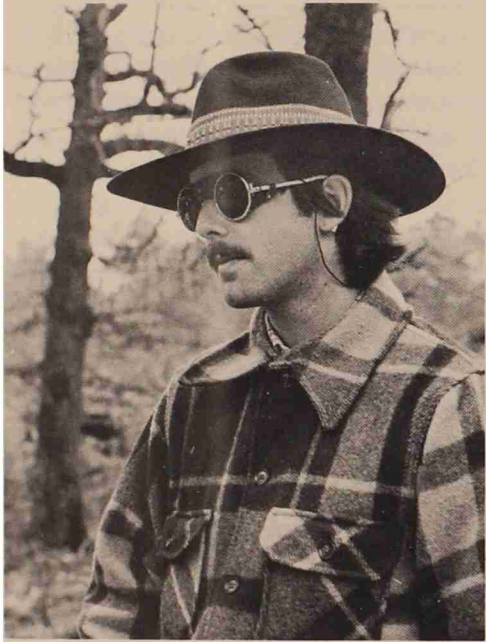
## FRAGS



The Forest Resources Association of Graduate Students, FRAGS, serves two main functions: we provide information to prospective graduate students, assisting them in their acclimation into the Raleigh environment, and we serve as the communication link between the graduate students of the three departments and the school administration. Participation in FRAGS offers the student an opportunity to shape his or her academic and research environment and it affords an insight into the inner workings of the school. In recent years, FRAGS leadership and student participation has strengthened the channels of communication which are now open and viable. FRAGS is the oldest and the strongest of all graduate student organizations on this campus and we intend to maintain that hard-earned distinction.

—Bill Reynolds







# Reruns... A Look at Articles

## WHY RUN RERUNS?

In these days of rapidly improving technology, overpopulation, nuclear expansion, and fast paced lifestyles we are experiencing a decline in romanticism, in literary eloquence, and in reading and writing in general. The role of the forester is constantly changing and expanding with commensurate changes in the skills needed by forestry graduates. The ability to convey thoughts and meanings in written form is a necessity for a forestry graduate but one that has been somewhat lacking in the recent past. This journal, the PINETUM, has been a reflection of the students' attitudes and interests in the past but due to increased production costs and a decrease in input and enthusiasm this could be one of the last issues published. Take time to read this journal, you will find much room for improvement. In the future take interest in the journal, it is what we make it.

The PINETUM was first published by the Forestry Club in 1934. It was one of the first journals of its kind in a forestry school and has since been used as a guideline for journals at other forestry schools. The word Pinetum is defined as "a collection of living coniferous trees" and as a "treatise" on these trees. The journal was originally intended to inform and entertain with "articles of humor . . . and other articles, technical or otherwise, that might be of interest to student and alumni foresters." Since that time the PINETUM has become much more than just a journal. The history of the Rolleo, the Conclave, the school forests, the faculty, and the students are preserved in the past forty-seven issues of the PINETUM. The PINETUM, by providing information and entertainment to students, faculty, and alumni has provided us with a wealth of information concerning the history of the forestry school and the history of forestry in general.

Forestry has undergone dramatic changes in the past eighty years. The first foresters were actually the first conservationists. Before the advent of forestry there was an attitude of cut what is needed and move on. At that time it must have seemed that our natural resources were unlimited and that whatever damage was done nature would heal. As time progressed there came men of insight and foresight who saw the damage being done to our woodlands and realized a need for some sort of management. It was apparent that our resources were not unlimited and that nature could use some help in perpetuating our forests. These men were the first foresters. With only the most basic of tools and the bare necessities for survival these men entered the woods with purpose and determination. The need for forest management was brought to the attention of the general public in the early nineteen hundreds during the presidency of "Teddy" Roosevelt. He was a great sportsman and a lover of nature. During his administration he established many national forests and put the management of forests on a business basis. Franklin Delano Roosevelt was also keenly interested in nature and in the conservation of natural re-

sources. He contributed to forestry through his use of the Emergency Conservation Work program to do a great amount of constructive forestry work. Since this time forestry has changed with the changing social climate. Throughout the sixties we experienced a great public awareness in conservation and a great surge of conservation minded forestry practices. Recently, during the late 70's and early 80's, we have seen a large increase in economic awareness. In 1980 Jimmy Carter passed a law affecting the taxation of forestry that makes forestry a more profitable investment than ever before. The role of the forester is no doubt changing and increasing to accommodate the needs of a changing society.

The gains that we have seen over the past 80 years have not been without their losses. Improved equipment, better techniques, computers, hand calculators, and a great deal of specialization have somehow changed our outlook on literature. Research papers and technical reports are the main diet of more forestry students these days. This is partially due to the fact that there is more information available and as a result more for the student to read and digest. Improved machinery and the great degree of specialization possible are also responsible for the decline in literary interest. It is getting hard to count all of the machines that one comes directly in contact with these days and almost unfathomable the number that effect us indirectly. There is even a little machine, that many teachers call a crutch, that you can slip into it's case, hook onto your side, and do in the field what was meant for the office. The worst of it is that after working all day, and coming into contact with countless machines, there's a box at home through which come some of the best tales, the latest information, your favorite sports, and many old familiar faces. If your eyes get tired you can head over to your "system" and listen to your favorite jams or to the radio if you can stand the commercial interruptions. Commercial interruptions, by the way, are one of the best incentives to read that I know of. Just think of it, one book can provide hours of commercial-free entertainment. That's as good as HBO offers but without the monthly bill or hook-up charges.

The ability to make skillful use of the English language is a necessity for graduates in all aspects of Forest Resources. The development of these skills doesn't have to be a painful process. It does, however, require time and some conscious effort. An effort must be made to find material that makes enjoyable reading. The time required is probably the most difficult obstacle to overcome. In order to read and to comprehend what you read you need quiet time. This is a rare commodity in our highly automated society. We, as students of Forest Resources, know well the quiet refuge of the forest. When you go there, carry some reading material. When at home, make an effort to turn off the television, turn off the radio, and open a book.

The following pages contain articles from old PINETUMS. It is my hope that these articles will stimulate some interest in reading, and in the process, some interest in your profession, in your school, and in your predecessors.



# from Pinetums of the Past

In our Forest Resources library you can find bound volumes containing PINETUMS dating back to 1934. If you have not seen them I invite you to visit the library and thumb through some of the old volumes of our Forest Resources Journal. *Literature* is one of the oldest and most beautiful forms of communication. Please make an effort to keep it and this journal alive and productive.

—Marshall Hartsfield

## RETREAT HELL, WE'RE ATTACKING IN ANOTHER DIRECTION

1954 *Pinetum*

This is an episode from the story of the 18 fighting men who donated everything but their lives to defend a well-known, but little publicized cause.

For eight weeks we had been stationed at Fort Hill. The enemy had been using every mean, underhanded trick in the book of war. They kept shelling us with "heat shells" which raised the normal temperature from 70 degrees to 110 in the shade. Armies of dang chiggers were talked into fighting against us. Poison-ivy was disguised to look like turnip-greens. Bee-hives were booby trapped in strategic spots to go off at the smell of a human. To make it more intolerable, subversive agents, knowing our food supplies were cut off, stole what quartermaster supplies we had—leaving us with boiled 'taters, cabbage, and only five different kinds of beans for vittles. It was getting so bad that we planned to retreat to the mountains for a final stand.

Our strategic retreat was finally planned. We were to load all the rolling stock with equipment on a Friday night. On the following Monday we were to move out under the cover of sunshine. You see, we were fighting a man-to-man war with the enemy, which meant that both sides had Saturday and Sunday for Moonshine and Wimmen.

That Monday the vehicles moved—all 19 of them—by disorganized routes through strategic wet counties. We moved all day in a Westerly direction until we reached the land stand site—the "Chicken Coop Retreat."

Well, them thar 'subversive agents' trailed us right to our camp. However, it wasn't very dang long and they was up that well known creek without a paddle. Them chiggers the enemy imported blew up, because of the change in atmospheric pressure, and busted. I say they did! And them heat shells didn't have any effect on them cool mountain winds. It was frostin' too hard for them to use their poison-ivy trick, and them little bees was forced out of the air by iced wings. Our food problem was solved by natural abundance, and our undying thirst was throttled by the freely flowing "white."

Well, to make a short story long, them 'subversives' finally gave us exams—decided we won't smart enough for the clan—and let us go whar we-uns came from. I say they did! Thus another sheet (i.e., page) of forestry camp history was made.

—William T. Huxster

## SNAKE CHASING

Disclosing Something of North America's Formidable  
Pit Vipers in Their Native Haunts

by Rufus Page '35  
1935 *Pinetum*

Since 1927 when I first became actively interested in snakes, I have often had occasion to believe that the average man catalogues all reptile enthusiasts as somewhat queer, if not altogether unbalanced. And when a man will wade knee deep through cypress swamps the better part of a day for a single specimen, this criticism may, in part, seem justified. However, the opportunity for adventure that is offered the snake collector, amateur or professional, usually sends him on his way undisturbed by what others may think.

I shall never forget the time when I was forced to leave several specimens of one of the gentlest and smallest of our common North American snakes, the slender keeled-scaled green snake, an entirely harmless reptile that feeds chiefly on insects, at a boarding house in which resided several women of my acquaintance. I left immediately after placing the box containing the reptiles in my room. When I returned I was informed by one of the men that the house was frantic, and that he had been attempting for two hours to locate me. One of the women had got wind of what the box contained, and flinging her hands to high heaven, took the stairs two at a time, screaming all the way. Confining herself to her room, she refused to come out even for dinner. And there she stayed, sobbing audibly, until the cause of the disturbance was far removed. I do not think that, to this woman, I have ever appeared entirely rational since.

Each snake chase offers adventure of a sort, whether the reptile sought is harmless or one of the seventeen venomous species found in this country. Narrow escapes, though infrequent, are occasionally met with. Such was the case when I was spending a week-end at a combined "Y" and Scout camp in company with several friends, repairing the camp for the coming season's use. The site was bordered by a lake and several swamps. When work was over for the day, I usually spent the hour before dark either on the lake or prodding around in the nearest swamp. This particular evening I chose to do the latter, with nothing more in view than a stroll before supper. I located several small moccasins in the course of the walk and was returning to camp with my catch when glancing at the ground I saw a heavy-bodied reptile, inconspicuously marked, cross an open plot just ahead. It was twilight and the reptile blended in well with the grass and swarf palmetto. With the single glance I had gotten of him in passing, I guessed the snake to be a swamp black snake, a species more sluggish and not nearly so graceful as our common black racer and, of course, entirely harmless. I lay down my burden and pressed on through the grass in pursuit. The reptile took to a clump of sabal palmettoes and I was forced to stoop and crawl in after to make the capture. I was carrying neither stick nor noose, anticipating no



need for a weapon here. At last the snake was cornered and I reached forward to nab it. At that instance, in the dim light filtering through the bush, the snake coiled as quick as a whip—and rattled loudly! It was the dreaded diamond-back, killer supreme of North American reptiles, whose bite usually brings death within the hour! Needless to say it took only a fraction of the time to emerge from the palmettoes that it had taken to follow the snake in. I hastily armed myself with a stick and beat the bush until dark, but was rewarded only by the strong, musky odor so characteristic of the rattler when cornered. I got no further sight of him that evening.

It is in the southeastern section of our country that the largest diamond-back is found. Here sometimes it obtains a length of eight feet, and without exception reaches a greater body weight than any other poisonous reptile in the world. Even the dreaded bushmaster of Central and tropical South America, which grows to be twelve feet long, weighs less than a large diamond-back. The bite of the diamond-back is usually fatal. I knew of a case in Florida where a collector, who had succeeded in capturing two six foot diamond-backs from a cavity near Gandy Bridge, connecting Tampa and St. Petersburg, was bitten on the thumb by one of his captives. He died in less than thirty minutes. I later saw the snake that bit him and can say that the unfortunate collector was lucky to live that long. Frequently dogs, while hunting quail in Florida, are bitten and live but a few minutes.

While I am acquainted with a number of deaths brought about by the bite of the diamond-back, I personally know of but two deaths authentically attributed to its less formidable, but still very dangerous relative, the timber or banded rattler who inhabits the eastern portion of this country from Vermont to Florida. A bite from this reptile brought death to Rattlesnake Joe, who some years ago performed at the State Fair held in Raleigh. He had no doubt developed a certain degree of immunity to the venom of these particular snakes, and capitalized on this fact by allowing himself to be bitten by banded rattlers after they had first been forced to strike a piece of raw beefsteak with pressure applied to the poison sacs. He played the fool once too often, for he succumbed to the bite of a freshly captured specimen in New Jersey at a fair. Either Joe's system wasn't up to par or the snake had not previously injected as much poison into the beefsteak as Joe imagined. It is interesting to note that Joe always told the credulous public that he forced the snake to strike the beef before striking himself in order that the spectators might be sure he was still in possession of his fangs. The other fatality from a timber rattler with which



I am acquainted snuffed out the life of a collector from the American Museum of Natural History. The man, upon being bitten, searched for his partner who was carrying the antivenom. However, the partner was too far away, and the search proved fruitless. He died in great agony. The snake in this case was unusually large measuring, if I remember correctly, six feet one inch!

The cottonmouth or stumptail moccasin, termed thus because of the pure white lining inside the mouth and the very short tail, lurks in swamps along with other water loving species, and so a chase after this pit viper always furnishes excitement. I have no trouble in calling to memory a day this past year which was spent in search of these reptiles and which nearly terminated in a painful experience on my part. The water surrounding cypress knees and hummocks of grass and other vegetation was fairly low, and friends and myself had little trouble making way through this particular swamp which had always netted us such good returns for our trouble. We had bagged several moccasins of medium size when I heard Churchill Bragaw, a native of those parts and thorough nature lover, yell that he had another under control. He was too far away for me to reach him before he bagged the brute, and so I continued my search, stopping only to yell congratulations back. I had not resumed hunting but several minutes when a conspicuously-colored frog on a knoll of ground at the base of a cypress knee attracted my attention. I stooped and reached forward quickly, hoping to capture this amphibian before he could effect an escape. Just as my hand closed on the frog I saw, not eight inches away a cottonmouth in position to strike. Needless to say Mr. Frog was freed for the moment until, with the aid of a noose, I had the snake safely tucked away inside a burlap bag. The remainder of the afternoon I was most careful to look before placing my hand. Bragaw wades these swamps the year round with pants rolled to his thighs and only light tennis sneakers to protect his feet from roots and snags.

A large cottonmouth can pack a wallop that is to be feared by the bravest. At the camp in Florida previously mentioned, a short, stocky Dutchman was evidently picking oranges in his grove across the lake and swamp from the Camp's mess hall. It was twilight and my buddy had gone to the lake to wash before supper. He was in camp alone at the time. He distinctly heard someone, evidently in great fear and pain, yell for help. Having nothing but an old, leaky scow and an improvised paddle, and dark nearly upon him, Doc was unable to find the man to render assistance. Next morning a searching party was organized when the Dutchman was missed, and he was found, stiff and swollen, with the fang marks of a snake on one side of his calf and the teeth marks of the lower jaw on the other side!

I very nearly got bit on the thumb by a cottonmouth myself, though it was not as large as the snake in the previous episode. I had chased this particular specimen up and down a cove for half an hour, and had finally succeeded in flipping him upon the bank with an oar. Before I could make fast the boat, he began sidling towards the water, and in an attempt to keep him from escaping, I grabbed hold of his tail, raised the lid of my field cage, and attempted to center the snake over the open door. He reared and missed my thumb barely an inch. I dropped the snake, but my aim was bad and he glanced off the cage door into the river to disappear.

The copperhead, another of our representative pit-vipers commonly found east of the Mississippi from southern Mas-



sachusetts to northern Florida, though ounce for ounce of poison is possibly as deadly as the diamond-back, carries much less poison than does the latter, and has appreciably shorter fangs in keeping with the length of its body, which seldom exceeds three feet. This is not, as is commonly thought, an aggressive reptile. I have come near to stepping on several without apparent viciousness on the snakes part. At Mr. Shield's camp in Tryon, North Carolina, I examined a copperhead which had been captured under most unusual circumstances. A group of Scouts were in the field one evening when they ran across this snake. Not knowing that it was poisonous, one of the fellows, who was probably used to handling harmless snakes with ease, picked the reptile up and carried it home, kept it all afternoon, and that night took it to Scout meeting. The Scoutmaster, upon seeing the snake, told the boy to place it in a box and then told him what kind it was. Naturally the boy was quite disturbed. When I saw the snake it had been in captivity for three years, and had frequently been changed from cage to cage and had never once proved ill tempered. I have captured a number of these specimens myself, and know that usually they become quite tame in captivity under proper care. Dr. Z. P. Metcalf does relate one death occurring from the bite of a copperhead which, he says, was vividly impressed upon his memory. The incident occurred when he was but a boy. A bride of but several weeks had left her cabin to draw water from the spring, I believe, when she stepped upon a large copperhead and was bitten upon the ankle. Those were horse and buggy days and it required eight hours to return with the nearest doctor. This proved useless, for the bride died shortly after her husband, with the physician, reached her side.

The coral snakes, which are represented by two species in the United States, offer an interesting contrast to the thirteen species of rattlers and the two moccasins found in this country. They are slender, seldom reach a length of over a yard, and are brilliantly banded with red, black, and yellow. The head is no larger than the body and no pits appear between the eye and nostril. They are related to the cobras of another continent, and possess small, permanently erect fangs. In contrast to the pit-vipers, poison from these snakes affects the nervous system, causing paralysis. Of the coral snakes in the United States, the Harlequin is found in south Georgia and Florida, and the Sonorian in the Southwest. Both evince burrowing habits, are temperamental, and can be vicious when minded to. They bite rather than strike, chewing the highly toxic venom into the victim. Because of their short fangs, ordinary clothing will protect a man from their bite. I do not know personally of anyone being bitten by either of these snakes, nor have I ever been in possession of a live specimen of a coral snake.

It is interesting to note superstitions and tales bearing on adventures with snakes, and I close with one typical to the forester, during the relation of which I was an interested listener.

The almost-full moon peeping through the Spanish moss furnished an ideal setting for tall tales. Dawson, the stock 200 pound 3-C's cultural foreman was an old hand at the game, and dispensing with preliminaries began without the slightest trace of a smile.

"The Boss has a lawyer friend who went home yesterday plumb disgusted. I guess Slime Cass was to blame. Slime had been tellin' the city man about the big rattler he brought home last week and the lawyer told Cass to get in his car,

that he had somethin' to show him. Cass spit his cud out and got in. The lawyer headed toward Big Creek and hadn't gone more than a mile from the pier when he stopped, got out, and motioned Slime to follow him. Not more than fifty feet from the car he stopped by a big gum and pointed at a dead rattler layin' at the butt.

"There, I killed that yesterday, Slime Cass," he said, as if to let Cass know that he wasn't the only snake killer around these parts. And it was a right big snake, too, more than five feet long. Well, Cass went over to the gum and turned the rattler over with his foot and then turned around to the lawyer sort of sorrowful lookin'.

"Uh huh, jest like I thot," he said.

"What's that?" the lawyer asked him. Cass pointed to a hole in the snake's head, made by a 45 bullet.

"Yer didn't give the critter a chanct. Yer killed him with a gun, and him so much littler'n you, too."

"And how do you kill them, Mr. Cass?" the lawyer asked sorta' sarcastically!

"Wall, Slime drawled, 'When I runs on one uv the varmints, I pokes him with'a stick 'til he gits right mad and curls up, fixin' to strike. Thin I keeps on poken' at him. Fust thing yer know, he do strike, and' when he do, jus' 'fore he hits me, I cotch him ahind th' neck and' *chokes* the life outern him. Naw, yer way ain't fair, hit ain't."

"The lawyer just snorts, turns around and goes back to his car and drives away, with Cass still standin' by the gum tree. Don't know why, but the Boss said his lawyer friend must have thought Cass was just kiddin' him along."





## FASHIONS FOR FORESTERS

1936 Pinetum

According to Dalton M. Parker "Beau Brummel" of the senior class, the rough and ready attire of the legendary ranger, woodsman, and jack-of-all-trades forester is doomed to disappear. The trends, in his mind, definitely point toward a more civilized and cosmopolitan dress, for as Parker states, "What man wants to encounter one of the fairer sex, during his woodland rambles, dressed in a sweaty, somewhat odiferous, blue shirt, snagged breeches, and a battered pair of brogans?"

In keeping with his convictions, "Beau" daily appears on the campus and on the field trips nattily dressed in the latest styles. His light gray, English riding breeches are smartly tailored in the latest Continental fashion, with a snug knee fit, and full flare to the waist. The coat is a tan sport gabardine with a pleated back. He says that it is essential that the coat be a trifle longer than hip length and that it fit trimly at the waist.

Shirts are tailor-made, and while the conventional shirt collar is a plain one, he prefers those which button down at the corners to prevent flapping in the wind. The most

appropriate colors are the plaids ranging from red and white to green and white. The tie can either be a bow or plain tie matching, in all cases, the shirt colors. The one which he prefers wearing is a vivid green matching nicely his pale tan shirt.

Parker prefers riding boots to field boots, claiming that the former give a much smarter, military appearance, but field boots are permissible if much walking is contemplated. Gokeys are recommended. The essential thing is to get boots that conform to the natural contours of the legs, preferably with pointed toes.

The outfit should be completed with a soft felt hat in any of the present popular shades. "Beau" wears a light tan with his ensemble. A malacca cane with a curved handle is a distinctly desirable addition. It can be used to kill snakes, assist one up a steep hill, or use to whirl nonchalantly up the main street of a small town, giving the owner that impressive professional air.

In the undergarment line, "Beau" emphatically insists that "Arrow Underwear" is the only thing.



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## TO A BIRD DOG

Lloyd Troxler  
1937 Pinetum

*You're up in the morn when the air is chilled,  
You get your gun and with excitement filled  
You unleash your dog, and off through the sage  
You look for the covey that you know is of age.*

*Your dog dashes off, there's joy in his soul,  
As here in a ravine and there on a knoll  
He searches hard for the Bob-white gay.  
You might run into a simple stray.*

*Your hope dies down but over there  
Is a big straw field and your bounty fair  
Should be feeding close in there today—  
And are still around if not scared away.*

*Your dog never stops but through golden hay  
Back and forth he weaves his way.  
He slows as he cautiously sniffs the air.  
He moves on farther; he knows they're there.*

*He stops; his head slightly turns to the right.  
His beautiful body is frozen in flight.  
To his nostrils has come that burning smell  
Of the feathered game, he knows so well.*

*Not a move, but the quiver at the end of his tail.  
His jowls drip saliva and you know it's quail.  
His right paw is raised; he leans to the fore.  
They're there, he knows, and he moves no more.*

*"Steady boy!" and one step more,  
Your heart stands still as you wait for the roar.  
There's a pause—you wonder, will they go in the clear?  
Then the feathered bombs explode in the air.*

*No time to think but the barrels are lined  
On a roaring bird that's off to the pines.  
There's a blast; he falls and hits the ground.  
And the rest are gone with a facing sound.*

*"Dead bird, boy," and he's off to look  
For the only bird from the covey you took.  
He retrieves him with a bound of joy.  
And you pat his head as you whisper "good boy."*

*To me there is no greater thrill  
Than to see a setter on a point so still.  
And your heart is full of a joyous pride.  
As he stands ever ready, close at your side.*

## FIRST ANNUAL CONCLAVE

by Stewart Gregg '59  
1959 Pinetum

Foresters' brawn, beards, and brains were well demonstrated May 10, 1958 at the First Annual Conclave of Southern Forestry Schools. The University of Georgia School of Forestry sponsored the Conclave which was held at Camp Rock Eagle State Park near Eatonton, Georgia.

More than 150 students representing eight forestry schools from Alabama, Florida, Georgia, Louisiana, Mississippi, North and South Carolina, and Texas participated in the weekend of forestry events.

The University of Georgia won first place as Conclave Champions. Louisiana State University was second, Stephen F. Austin was third, and North Carolina State College placed fourth.

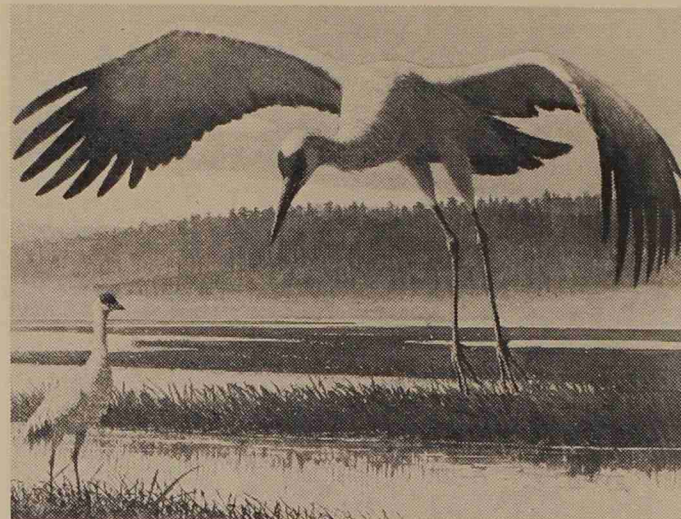
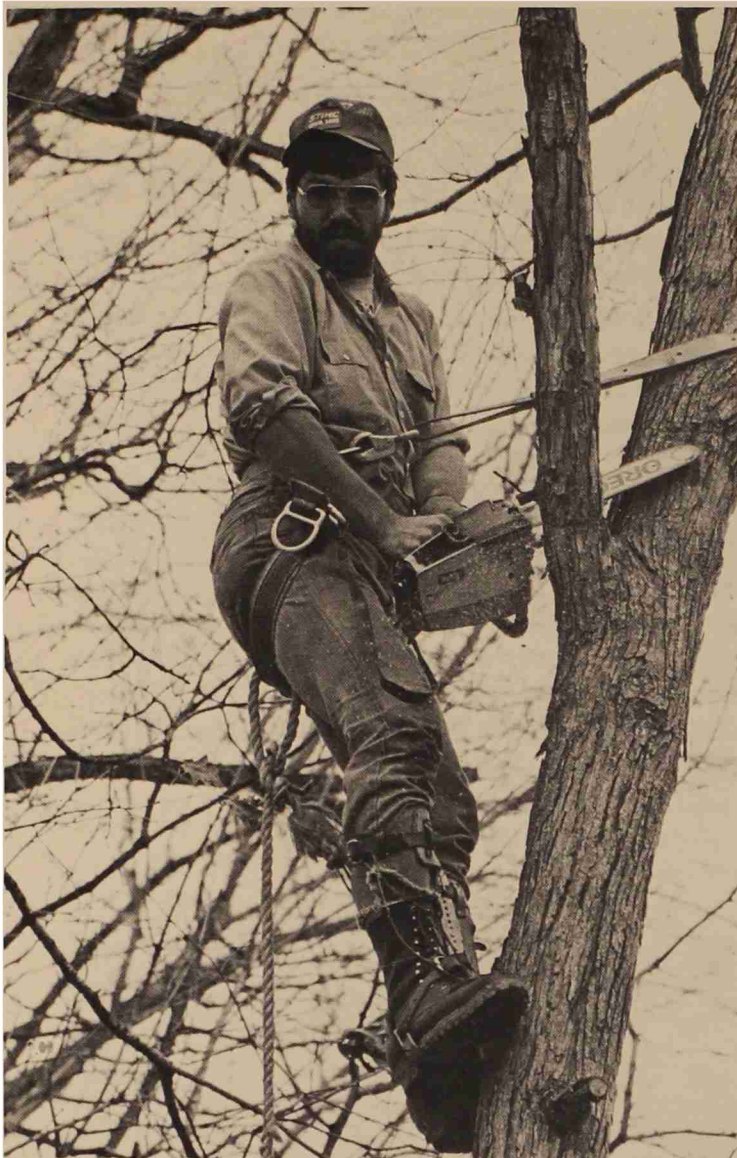
Members of our team were Leon Bonner, Phil Glass, Stewart Gregg, Glenn Hampton, Archie Pierce, Roy Stonecypher, Jack Sturgill, Lloyd Swift, and Dick Welch.

One of the main objectives of the meet was to introduce professional practices to the students and to promote fellowship among Southern foresters.

During the business meeting following the Conclave banquet eight students were named to a committee to work out plans for future conclaves. Stewart Gregg and Jack Sturgill represent North Carolina State College.

The 1959 meet will be held in Baton Rouge, Louisiana with the Louisiana State University acting as host.





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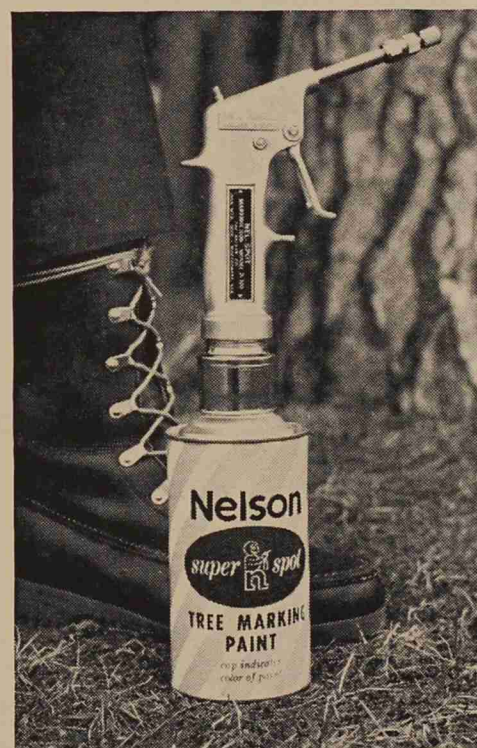


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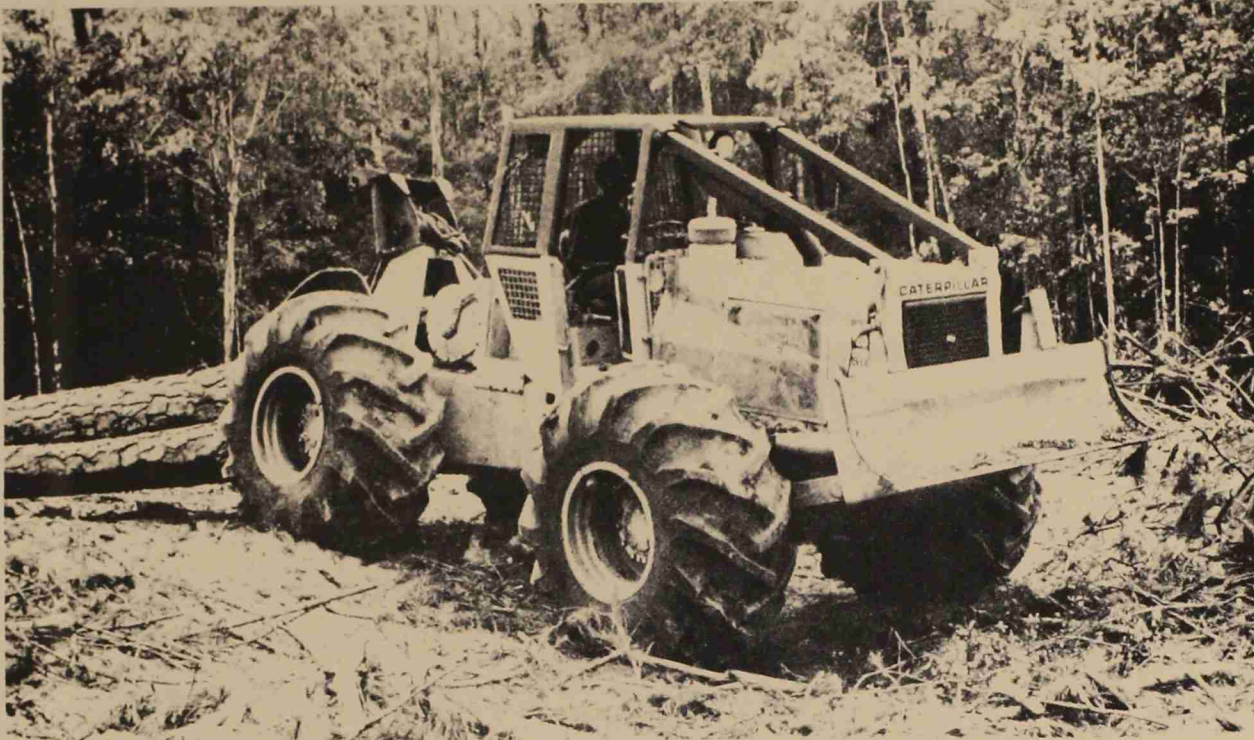


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
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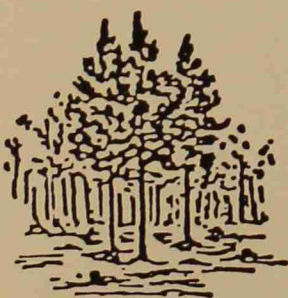
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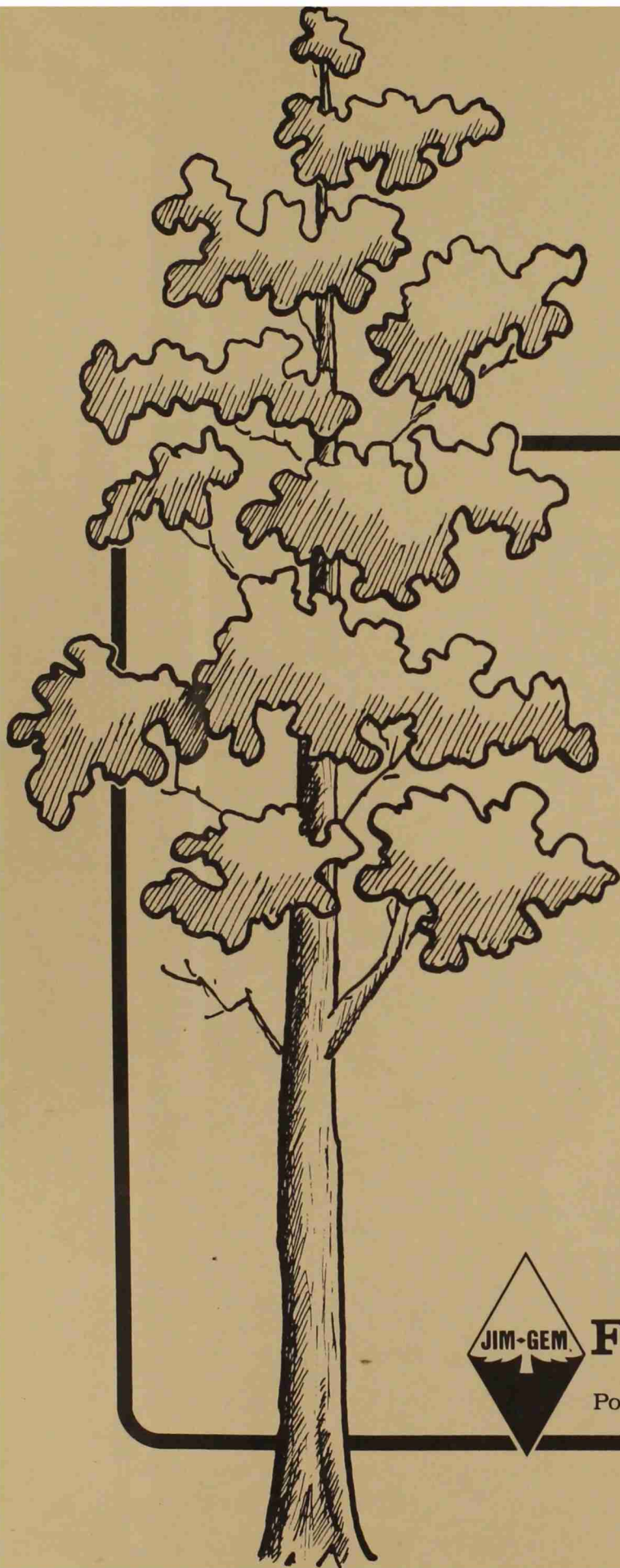


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