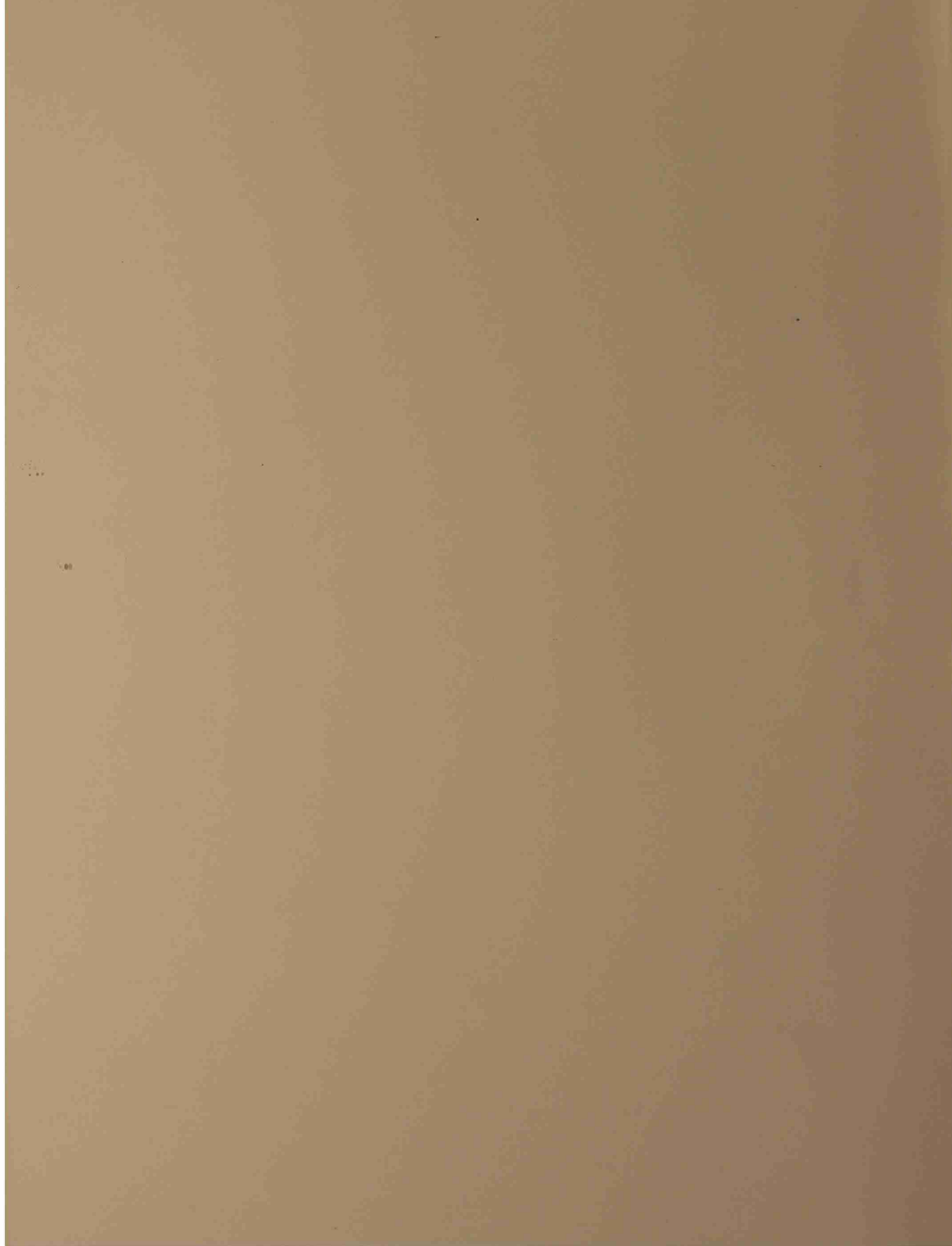


The
Pinetum

Journal for the College of Natural Resources
2003-2004, 69th Edition







Dr. Hou-min Chang

Dedication

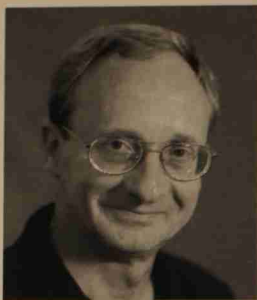
Dr. Hou-min Chang has been a celebrated professor in the Department of Wood and Paper Science at NC State for over 30 years. He earned a bachelor's degree in Forestry from the National Taiwan University in 1962, a master's degree in Organic Chemistry from the University of Washington in 1966 and a doctorate degree in Wood Chemistry from the University of Washington in 1968. He joined NC State as an assistant professor upon the completion of his doctorate degree. In 1973 Dr. Chang became an associate professor and in 1977, a full professor. Since 1990, he has been a Reuben B. Robertson professor of Pulp and Paper Science at NC State. Dr. Chang served as a visiting professor at the University of Tokyo in 1981 and at Kyoto University in 1998.

Dr. Chang has made outstanding contributions to research and development in the pulp and paper field as a researcher, leader, educator and associate of the industry. Dr. Chang's research includes the chemistry of oxygen delignification and bleaching reactions, the characterization of residual lignin in kraft pulp and its linkage to polysaccharides. He led pioneering research on lignin biodegradation and assisted in the development of the MyCoR process for decolorizing kraft bleach plant effluents. Dr. Chang's contributions to the areas of lignin chemistry, chemical processing of wood, pulping and bleaching and pollution abatement are recognized worldwide for their excellence. He holds 8 US patents, is editor of three texts, authored 15 book chapters and over 120 articles.

Dr. Chang received the Outstanding Graduate Teaching Award from the NC State Alumni Association in 1993 and 1994. In 1999, he was named a TAPPI Fellow, a prestigious title awarded to those who have contributed exceptional meritorious service to the Technical Association or the Pulp and Paper industry. Dr. Chang is a member of TAPPI, the American Chemical Society, Sigma Xi, Xi Sigma Pi and Phi Kappa Phi.

In his professorship at NC State, Dr. Chang has tirelessly given his time and support to students at the undergraduate, graduate and doctorate levels. He facilitates the annual international work internship with Nippon Paper in Tokyo, Japan for undergraduate students. He has demonstrated his commitment to education and to the Department through the establishment of the Dr. Hou-min Chang Endowed Scholarship in 1995. Students find Dr. Chang anxious to assist them in their academic endeavors for achievement and integrity. He has mentored many graduate students that in turn have made substantial contributions to the industry through research and as industry leaders. Undergraduates could always stop in his office to ask for assistance in their studies or research. Talking to him, students sense his love of wood chemistry and his dedication to passing this passion onto them, especially when he insists that organic chemistry is easy. (Most students don't think so!)

Upon his retirement in 2004, the Department of Paper Science and Engineering of the College of Natural Resources at NC State celebrates Dr. Hou-min Chang's record of service and excellence, and wishes him happiness and continued success. Thank you, Dr. Chang.



Dr. Larry Nielsen

The Dean's Perspective

When I was a graduate student at Cornell University and our family was young, my grandmother visited us one fall. It was a remarkable trip—one of those autumns made just for calendar pictures and spritely octogenarians—but the most remarkable part was a brief conversation with my grandmother.

I was complaining about the sorry shape of a rubber tree plant that we had had for several years. It had grown leggy and crooked. She said, "When I have a problem like that, I just cut it down to the soil and it grows back much nicer."

"But, Bessamor," I said, "It has taken three years to get this big."

"Don't worry," she said, "Be patient. It'll be back before you know it. Time passes by so fast, I don't know where it goes."

I thought she was a bit "touched" back then, but the older I get, the more sense she makes.

So, what's Bessamor's lesson for us? In botanical terms, what she meant was that the important part of the plant is in the soil—the part we see is much less important or stable, even if it is green and, sometimes, very attractive.

You've grown quite a leafy structure here over your years as a student—courses, internships, work-study, group projects, presentations, clubs, Friday-nights-doing-who-knows-what, watching Phil Rivers throw completions, conventions, summer jobs. These leaves have grown from the roots you brought to NC State, provided by your family, your earlier education and your experiences.

You've also grown some impressive new roots while you've been here. Whether or not you recognize it at this moment, you've planted yourself in some pretty fertile soil! NC State is one of the best public universities around—anywhere. Because we're big, we have most of what anyone could want, from big-time sports to big-time faculty. But we act small, providing a place where you can feel you belong, no matter what your interests.

And your College of Natural Resources is truly the best. I know you appreciate, along with me, the quality of our faculty and staff and their dedication to you as their "Job #1." We have the leaders in natural resources, the finest researchers, and the folks who are leading our state in managing its land and waters well—but the truly unique and wonderful thing is that our faculty and staff care most and first about you, our students. Sure, there is an occasional bad lecture, wicked test, or impossible problem set, but those just keep you alert! What is important is the time they spend making sure each of you, individually, get the most you can from your education.

Now, as you head off to the next phase of your life, you may feel a bit like that rubber tree, about to get severely pruned. Everything will be new—job, home, maybe a spouse and a family, certainly things like taxes and insurance. But just like Bessamor knew, you should also know that your roots are strong and they will nourish you. Enjoy what is happening to you right now, because if you blink, it'll be gone.

And as she would have said if she knew better, "GO PACK!"



Dr. Nielsen at a CNR function.



Dr. Adrianna Kirkman

Academic Affairs

The 2003–04 academic year has been good for the College of Natural Resources. Here is a brief snapshot of some of our activities and accomplishments for this year. Our college continues to grow in our graduate and undergraduate enrollments, in our academic offerings, and in teaching and learning innovation. The official enrollment for the college for 2003–04 was 874 undergraduates and 206 graduate students as measured in the fall. Of those students, 159 made the Dean's List for the fall semester, 78 graduated in December, 2003, and approximately 130 are expected to graduate in May.

Through the University's planning process, the college and its departments are exploring areas of need in natural resource education that will address the changing demands of our society. New graduate and undergraduate programs will result from this study that will fill in gaps between our existing programs and will attract students to unique course offerings, such as urban forestry, sport management, environmental justice, biomaterials and others.

In the past year, CNR faculty have been showcased in presentations on innovative teaching strategies using inquiry-guided methodologies, internet and wireless delivery of material, and various distance education techniques. With the knowledge and drive of our faculty and the expertise in our IT staff, we look forward to being among the leaders in developments in teaching and learning under the university umbrella project for Learning in a Technology Rich Environment (LITRE).

In addition, the college has been very active in implementing assessment of programs to measure the achievement of student learning outcomes and program objectives. These processes underlie the university's program review at both the graduate and undergraduate levels, as well as the external accreditation reviews for most of the programs in the college.

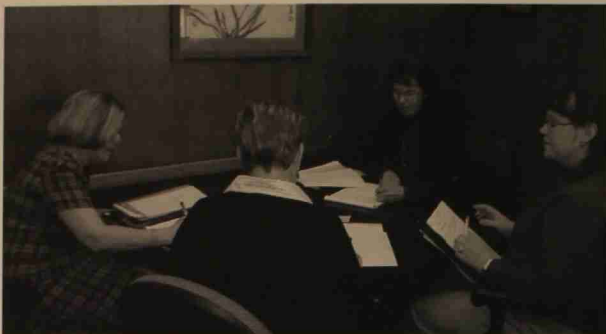


Academic Affairs and IT personnel (*top left to bottom right*):

- Scott Payne, Director of IT
- Bill Swint, Education Media Specialist
- Josh Gira, Computer Consultant
- Adrianna Kirkman, Associate Dean
- Joanne Urbanski, Student Services Assistant
- Yvonne Lee, Student Services Assistant
- Brookie Lambert, Director of Academic and Student Services

(*not pictured*):

- Kris Fowler, Director of Recruiting and Enrollment Management
- Aparicio Clifton, Computer Consultant



CNR Peer Advisors

- PRTM: Melissa Bernhardt, Andrew Hawley, Claire Moseley, Kathleen Murphy, Keith Nesbitt, Emily Thatcher
- SFW: Aaron Bunch, Alison Price
- PSE: Christopher Duncan, Cyndi Hendren, Mary Johnson, Michael Wilson
- NRE: Ben Furr
- WP: Russell Hurst
- FOM: Justin Moretz
- ET: Erin Shown

The CNR Peer Advising Program has continued this year to serve the needs of the college, departments and the CNR freshmen. The students in this program have provided recruiting services to the college by hosting prospective students, calling students admitted to the college, and serving as departmental/program representatives at Open House and First Year College activities. In addition, they have organized one-on-one and group activities for their freshman advisees and have been available resources whenever the need has arisen. The freshman kick-off event in the fall in Carmichael Gym was attended by about 60 freshmen, 12 advisees, and assorted CNR faculty. The Peer Advisors this year are listed below. They have worked hard, and we give them a heartfelt "thank you".

In January, the college began to realize its vision for a Community for Diversity in Natural Resources (CDNR) with the hiring of a director. Thomas Easley comes to us from Iowa State University with an MS in Forest Biology, and experience in the recruitment and mentoring of students in a university setting. He has already made an impact on recruiting of underrepresented groups to the college for the incoming freshman class. We look forward to working with Thomas as he leads the CDNR in facilitating teaching, research and outreach programming aimed at underserved populations through scholarly communication, pilot programs and developing partnership to foster these activities on campus and with other natural resource programs around the country.

Each of us can point to ways in which it has been a good year, just as it has been a good year for the CNR. Each of our graduating students can attest to that by pointing to their soon-to-be-awarded diplomas and the job opportunities they have been exploring. The continuing upper class students can congratulate themselves on another year under their belts, and on the knowledge they have gained as they have focused more on courses in their major. And the freshmen, now rising sophomores, can relish the completion of their first year at NCSU, and their survival of the transition from their high school and hometown. Over the year we have each faced challenges, and made discoveries about ourselves that have strengthened us. Some have left us temporarily to serve our country, some have left the college to seek other majors, and many have joined us as they discovered the unique programs that we offer in this college. I congratulate each of you on your personal growth and academic accomplishments over this year, no matter what form they may have taken. We, in the Academic Affairs Office, look forward to helping you achieve your goals over the next academic year.

CNR Council

The College of Natural Resources Council includes representative from each of the clubs and organizations in the College. The purpose of the Council is to promote unity among the different departments in the College. Each active club can receive support from the Council for their activities during the year.

In October, the CNR Council sponsored the 1st Annual CNR BBQ. Approximately 160 students and faculty joined us for free BBQ, bluegrass music, clogging by the NCSU Clogging Team and music by Grains of Time. This was a good opportunity for students and faculty members from the different departments to interact while enjoying the free BBQ and entertainment. We are already anticipating next year's BBQ and hope even more students will join us!

In February, the CNR Council hosted the annual CNR Business Etiquette Dinner in the Talley Student Center. University Dining catered this meal and approximately 40 students and faculty attended to learn about proper etiquette during interviews or in other business situations.

Officers and Club Representatives 2003–2004

- President: Dana Dickerson (fall), Emily Thatcher (spring)
- Vice-President: Emily Thatcher (fall), Dana Dickerson (spring)
- Secretary: Elizabeth Jones
- Treasurer: Ed Corey
- Forestry Club: Chris Neggers (fall)
- Forest Products Society: Justin Trivette
- ISTF: Nia Atmadja
- Leopold Wildlife Club: Josh McCormick, Ryan Spidel
- MANRRS: Cameron Morris
- NROGS: Frank Koch
- Rho Phi Lambda: Claire Moseley (spring), Lauren Reckerd (spring)
- SRA: Jo Higgins (spring), Kathleen Murphy (fall)
- TAPPI/PIMA: David Abrecht
- Advisor: Dr. Adrianna Kirkman, Dean of Academic Affairs



The 2003 CNR BBQ—a huge success!



Natural Resources Organization for Graduate Students

The Natural Resources Organization of Graduate Students (NROGS) represents students from all three departments within the CNR. Our primary mandate is to give these students a unified voice on issues pertaining to the CNR as well as the entire university community. However, we also strive to provide educational events, service opportunities, and sometimes a chance for grad students to get out of the office or lab and socialize with one another.

This has been a benchmark year for NROGS. For the first time, we elected officers from all three departments, and the increased exchange of ideas has already begun to shape our organizational activities. Our flagship event, newly christened as the Future of Forests and Natural Resources Distinguished Lecture Series, moved to the McKimmon Center this year. The new location allowed us to better accommodate the large crowd who attended last year's presentation. It also gave us a chance to expand our student poster session.



This year's Distinguished Lecturer, Catherine Mater, is an authority on forest certification as well as the development of specialized forest products. She presented current and developing perspectives from the commercial side of natural resource management in the U.S. Her presentation drew interest not only from students, faculty, and alumni, but from members of industry as well.

In terms of service, NROGS was the CNR organizer for this year's canned food drive in support of the North Carolina Food Bank. Members of the CNR community responded well, as we collected a substantial carload of goods. Many thanks go to Holly Bosley, our University Graduate Student Association (UGSA) representative, for spearheading the drive. NROGS members also met with Barbara Doll, one of the planners for the Rocky Branch stream restoration project currently taking place in the middle of the NCSU campus. Members have already committed to help with tree plantings, vegetation monitoring, and quite possibly, long-term research on the success of the restoration effort. Finally, NROGS spearheaded a fundraising effort to send several children to summer day-camp at the North Carolina Museum of Natural Sciences. Stay tuned to see what kinds of things the graduate students get into during 2004–2005!

2003–2004 NROG Officers (from left):

Kevin Potter: President

Mathias Lindstrom: Secretary

Jerusha Bloyer: Vice President

Holly Bosley: UGSA Representative

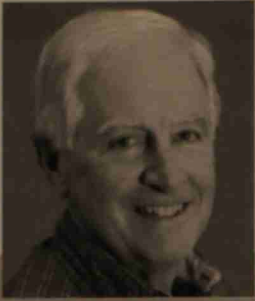
Frank Koch: CNR Council Representative

(not pictured)

Mike Naber: Treasurer and UGSA Alternate

Shubhayu Saha: CNR Executive Committee Rep.

Thanks to all of them for a great year!



Ben Chilton

Development and **Foundations**

How Important Is Your Gift To NC State?

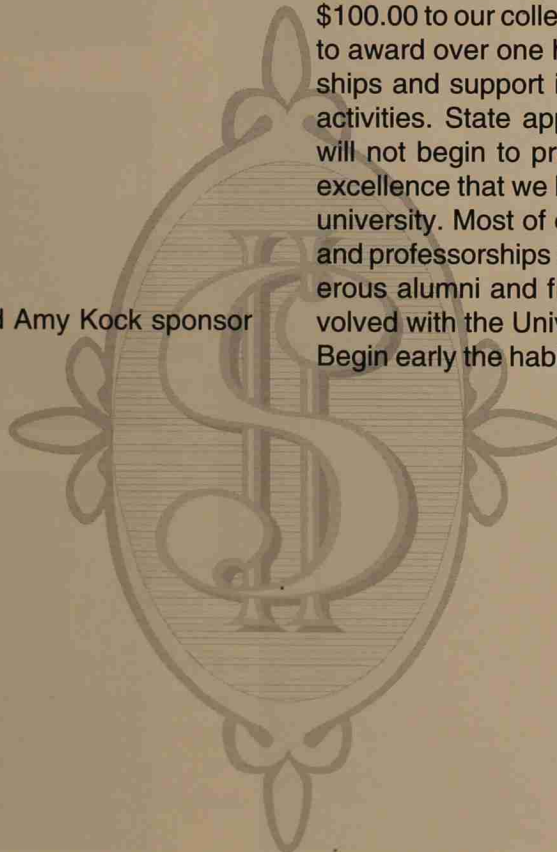
We all know personally that the cost of a university education keeps escalating. This popular University's student population is growing dramatically. Courses are filling up, classrooms are not large enough, and there are not enough teachers for many required courses. For the short term, there will probably be little relief from these concerns.

Sponsorships

This year we had Frank and Amy Kock sponsor the Pinetum with \$75.

New Graduates and Seasoned Alums Can Help

We work with many alumni every year who have decided to "give back" to their alma mater, and specifically to the college granting their degree. They give generously to either the *Paper Foundation* or the *N.C. Forestry Foundation* through the Annual Fund. Those working for larger companies often have their gifts *matched* by their employer. Thus a \$100.00 gift becomes \$200.00. If all of our approximate 6,000 alumni gave \$100.00 to our college this year we would be able to award over one half million dollars in scholarships and support important student and faculty activities. State appropriations, while important, will not begin to provide those extra margins of excellence that we have come to expect from our university. Most of our scholarships, fellowships, and professorships are made possible by our generous alumni and friends, not the state. Stay involved with the University and with your College. Begin early the habit of "giving back" to NC State.





Department of Forestry



DEPARTMENT of
FORESTRY
NC STATE UNIVERSITY



Dr. Fred Cabbage

Department Head's **Statement**

The Department of Forestry continues to perform well in its teaching, research, and extension functions. As of October 2003, there were 54 full-time appointments in the faculty of forestry, and three professors with part-time appointments in the department, as well as the Dean, Associate Dean for Research and Outreach, and the NCSU Vice-Chancellor for Outreach and Engagement. We now have broad based departmental expertise in a host of disciplines and curricula, ranging from the traditional forest biology, productivity, management, and extension programs to broader ecology, geographic information systems, wildlife science, environmental technology, natural resource, and biotechnology programs.

In the fall of 2003 the Department of Forestry had a total enrollment of 278 undergraduate students and 106 graduate students. Undergraduate enrollment included 97 students in forest management, 53 in Natural Resources, 61 in Fisheries and Wildlife Science, 50 in Environmental Technology and 17 in Environmental Sciences/Watershed Hydrology. Graduate student enrollment included about 33 students in the Master of Science program, 31 in the Master of Natural Resources, 2 in the Master of Forestry, 3 in the Master of Wildlife Biology, and 36 in the Ph.D. program.

The Department of Forestry assumed leadership of the joint Fisheries and Wildlife Sciences Program this year as well. This program has been shared with the Department of Zoology in the College of Agriculture and Life Sciences, and will continue to be a joint program. However, Richard Lancia will serve as the Program Director, and the Department of Forestry will assume administrative oversight for the program.

Our new Environmental Technology program also had a successful first year, and has attracted about 50 students. Several already have obtained excellent pollution control and monitoring and lab safety positions.

We implemented a new Forest Management (FOM) curriculum this academic year with more emphasis on professional skills in critical thinking, communications, ethics, and leadership, and more opportunity to select a concentration. Concentrations are currently available in International Forestry, Forest Business, Forest Biology, and Forest Management, and another is being prepared in Urban Forestry. Similarly, a major revision of the Natural Resources-Ecosystem Assessment and Natural Resources-Policy Administration curricula was placed into effect last year. These also allow more specialization of individual programs after completing a core set of courses in each program. We have continued to have students participate in excellent study abroad and international forestry field trips—to Chile and Sweden in 2003.



Dr. Cabbage in his office.

Society of American Foresters

The Society of American Foresters (SAF) is a national scientific and educational organization representing the forestry profession in the United States. We, the future foresters at NCSU, pride ourselves in having our own chapter. The NCSU chapter of the Society of American Foresters strives to uphold the goals set by other SAF members. These goals are to advance the science, education, technology, and the practice of forestry. We seek members that will uphold these goals and will better the practice of forestry.

The NCSU chapter of American Foresters participated in many great events during 2003. These events both educational and fun encourage professionalism in its chapter members. Our student chapter, along with Duke University, traveled to the national convention which was held in Buffalo, NY. We planed this trip to enable us extra time to embark on some fun activities. These extra curricular activities included camping, rafting, horseback riding, and a visit to Niagara Falls. These trips allow us to meet and interact with professionals that share many of our same interests.



Chuck Dollison, Scott Newkirk, Brian Swanson, and Regina Egbert take part in SAF quiz bowl.

The student chapter of the Society of American Foresters does many great things that promote professionalism in the future foresters at NCSU. While participating in many professional conferences, we also take the time to have fun. The NCSU chapter of the Society of American Foresters wants to thank the faculty and professionals that provide the support and resources which promote our great profession.



Rhett Naylor, Chris McDonald, Brandon Orrock, Stephen Penny, and Ed Price go on the rafting trip.



Forestry Club

The North Carolina State Forestry Club has had yet another exciting year in its long and distinguished history. The organization is composed of faculty advisors, technical advisors, and most importantly the students. Our members have put many hours into the activities this year.

Loggin' Demo

Our first major event was the North Carolina Loggin' demo on October 25, 2003 in Vass, NC. The forestry club helped out the North Carolina Forestry Association by selling tickets in the morning, and then providing the crowd with a timbersports demonstration and competition in the afternoon. The event went well, with even some of the crowd members challenging the club!



(both above) Mike Brafford on log chop.



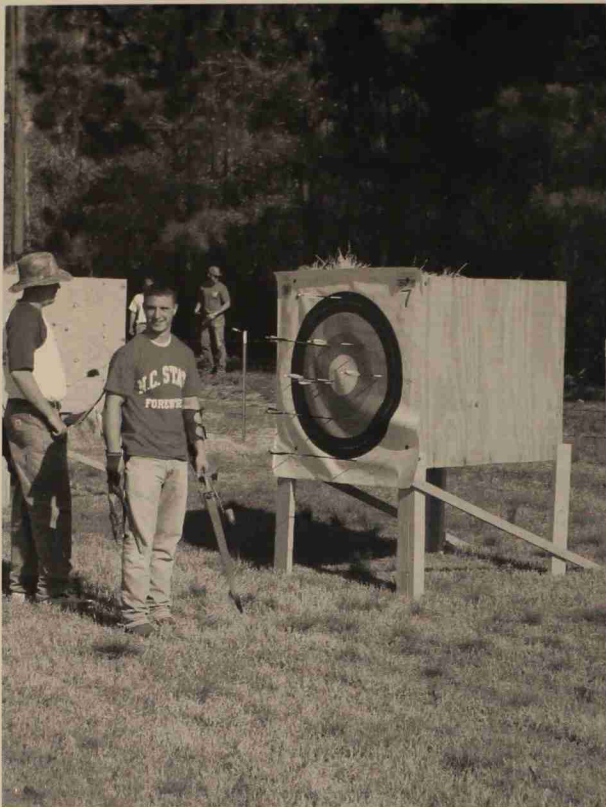
Megan Oakley and Regina Egbert on women's cross-cut.

Rolleo

Our next event was Rolleo on November 8–9, 2003. This is the traditional intercollegiate timbersports competition held at the Hill Forest every year. Rolleo consists of each class competing against each other for a saw blade award and bragging rights. Also we were privileged enough to have a Faculty and Alumni team this year. Additionally for the second year in a row Virginia Tech's forestry club was invited.



Regina Ebbert and Chris Liv on jack-n-jill cross-cut.



Stephen Renny on archery.

The festivities began Friday night with a bonfire and live music from the Southern Forestry Experience. Saturday morning we all woke up early ready to compete in the day's events. These included, men's crosscut sawing, women's crosscut, jack-n-jill crosscut, men's bow saw, women's bow saw, underhand chop, axe throw, log roll, dbh estimation, wood identification, dendrology, compass and pacing, pulpwood toss, and tug of war. Non-point events included skeet shooting, and an old revived event—frying pan toss.

At the end of the days competitions we were all served some fine barbecue pork with all the fixin's courtesy of Miles Hamrick. Afterward the awards ceremony was held where the winners of the days' events received their coveted saw blade trophies. The senior class won the competition but enjoyed the chance to compete with the other classes and Virginia Tech. I would like to thank everyone who made this year's Rolleo go off without a hitch.



The 2004 NCSU Forestry Conclave team.

Conclave

The 47th annual A.S.F.C. Conclave was hosted this year by Mississippi State University at the John W. Starr Memorial Forest in Starkville, MS. Thirteen universities participated in this three day long marathon of physical and technical events.

After arriving on Thursday after an all night bus trip Mike Bradford participated in the Stihl Timbersports exhibition competition. ESPN was there to cover the action and the winning competitor was given an invitation to compete in the professional timbersports circuit. The events that the competitors participated in included single-man buck saw, underhand chop, and stock chainsaw. Mike placed fourth overall.



Brian Swanson on log birling.

Friday is when the normal competitions began. These started with the technical events including compass and pacing, dendrology, timber estimation, DBH estimation, and wildlife identification. After a delicious barbecue lunch the more physical events began with log rolling and then axe throwing, knife throwing, chain throwing, and the very popular log birling. Justin “Dub” Davis took second in axe throwing. After another delicious barbecue dinner a band played late into the night and everyone had the chance to meet people from all over the south and southeastern United States.



Chris Barfield on knife throw.



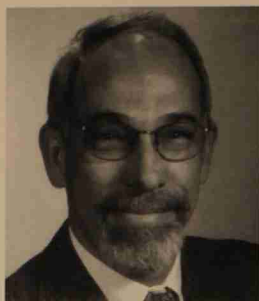
Chris Barfield on pole climbing.

Student	Place	Event
Justin “Dub” Davis	2 nd	Axe Throw
Regina Egbert	3 rd	Women’s Bow Saw
Steve Penny	1 st	Archery
Regina Egbert	2 nd	Women’s Crosscut
Megan Oakley	2 nd	Women’s Crosscut

Saturday began with wood technology and archery (Stephen Penny placed first). Then men’s bow saw, photogrammetry, women’s bow saw, and pole felling all before lunch. Regina Egbert competed in women’s bow sawing and took home third place! After yet another barbecue lunch the most popular events began. These included men’s crosscut saw, women’s crosscut saw, and jack-n-jill crosscut saw. After Regina Egbert and Megan Oakley took second in women’s crosscut sawing the crowd’s attention moved to pole climbing and log chopping. After the final barbecue dinner of Conclave the awards ceremony began and the NC State Forestry Club took home fifth place overall. We’re looking forward to next year when most of our competitors will have another year under their belt and the other teams competitors will have graduated. Watch out for lurking Timberwolves!



The Conclave team.



Dr. Richard A. Lancia

Fisheries and Wildlife

Fisheries and wildlife has been part of NC State University since the 1940's, but the Fisheries and Wildlife Program was not officially established until 1977. Over the past 25 years the program has grown to include 30 faculty from several departments across the University. Current enrollment in the program is 80 undergraduates, of which 80% are in the wildlife concentration and 20% in the fisheries concentration. There are about 30 graduate students.

On 1 February 2003 the administrative home of the program shifted into the Department of Forestry. Dr. Dick Lancia, a University Alumni Distinguished Professor, was appointed Coordinator. It has been a year since Dr. Phil Doerr and Dr. Lancia moved into Turner House, the focal point for the Fisheries and Wildlife Program. Turner House is located on north campus at 110 Brooks Avenue, across the street from the Credit Union on Hillsborough Street.

The Program hired a new faculty member, Dr. Chris DePerno, who will begin in April, 2004. Dr. DePerno got his Ph.D. at South Dakota State University in 1998, where he studied habitat selection of white-tailed deer in the Black Hills. Chris was the deer project leader and senior wildlife research biologist for the Minnesota Department of Natural Resources before deciding to move to NCSU. Chris' duties will be 70% teaching and 30% extension. He will be responsible for teaching FW 221 Conservation of Natural Resources and FW 485 Natural Resource Advocacy in the short run and an additional course in the longer term. Chris will also manage animal damage concerns and share wildlife extension responsibilities with Dr. Chris Moorman.

Over the past year many changes have been occurring. The faculty has worked diligently to revise the undergraduate curriculum in both wildlife and fisheries concentrations. These revisions will make it easier for graduates to become certified by the American Fisheries Society or The Wildlife Society. A review of the graduate program will be conducted in the fall 2004, semester.

This summer the Fisheries and Wildlife Program will offer about a dozen summer internships. Undergraduate students will have the opportunity to work on a variety of projects throughout the state. Some examples are mortality patterns of red drum, alligators on Bald Head Island, black bears on the coast, and red-cockaded woodpeckers in the Sandhills, to name a few.

Wildlife camp is now divided into 3 courses: 4 weeks of wildlife, 1 week of fisheries, and 1 week of a mountain field trip. Brent and Beverly Lineberger teach the wildlife and the mountain courses. Brent, who has a B.S. and M.S. in wildlife from NCSU, is an adjunct member of the forestry faculty. Dr. Tom Kwak, leader of the Cooperative Fisheries and Wildlife Research Unit, teaches the fisheries course. Over the past two years, availability of summer camp scholarships has increased significantly. On the forestry side, Dr. Chris Moorman teaches a week long wildlife course, FOR 264, to forestry students.

Graduation ceremonies will be held with the College of Natural Resources followed by an informal dinner hosted by the Wake County Wildlife Club at their very spacious clubhouse. This has been an annual tradition for graduates, parents, families and faculty to share their collegiate experiences and look toward the future.

As graduates look back on the Fisheries and Wildlife Program, they will be pleased to see it well established in a supportive environment. The successes of the past will be amplified in the future, and graduates of the program can look back in pride at the legacy in which they are a most significant part.

Leopold Wildlife Club

The Leopold Wildlife Club is an affiliate with the North Carolina Wildlife Federation and a student chapter of The Wildlife Society. Fresh new membership has come from the incoming classes and they are very active in the club. We have about 30 members that have led to a very successful year. We encourage club members to attend meetings to broaden both their interest and education in the wildlife curriculum and to explore some of the possibilities for a career in wildlife.

The North Carolina Resources Commission certifies club members to instruct children in wildlife and fisheries through a number of projects. Projects of the past include Project WILD and Project CATCH. This year the club had a number of members attend Project Learning Tree. We are able to use the expertise that we obtain in these workshops when we speak to elementary schools about wildlife and their habitats. This year we have an exceptional education chair who has kept the club very active in local elementary schools teaching youth about the importance of wildlife their habitats.

We maintain and monitor wood duck nest boxes on Yates Mill Pond. Wood ducks, screech owls, and other cavity-nesters nest in these boxes each year, and this provides club members with a chance to experience the outdoors close to campus. We have also maintained and monitored squirrel boxes on campus in the past and periodically check up on the status of campus nesting.

Since the fall of 2001, we have been part of a major project that involves the surveying of the white-tailed deer population on Bald Head Island. Approximately six weekends are devoted by the club members to count tracks and use spotlight counts to determine trends in the island deer population. This project is one of particular interest to the club members and allows members to gain valuable experience working with residents on the island and with people who are managing the deer population.



Leopold Wildlife Club building wood duck boxes for sale.



2003 NCSU Wildlife Conclave team.

The club conducts several public educational activities, such as the Dixie Deer Classic, in which club members set up a booth at local events and attempt to educate the public on outreach programs and on-going club projects. The club uses this opportunity to inform the public about important issues in wildlife and our approach to these issues. We also use this opportunity to display some of our projects such as our wood duck boxes; we normally bring some type of live wildlife to use for talks with youth.

If anyone is interested in joining the Leopold Wildlife Club, see the club website for more information at: www.cals.ncsu.edu/student_orgs/leopold



Conclave participants put their heads together.



Stephanie Zolkowski, Shelly Barrier, and Daniel Baumbarger help out at the Dixie Deer Classic.



Jennifer Freeman and Liz Jones teach elementary students about wildlife.

Wildlife Conclave



2004 NCSU Conclave team.

The 2004 Southeastern Wildlife Conclave was held in Jonesboro, Arkansas on the campus of Arkansas State University. The event took place March 18th–20th. Approximately 25 students competed in a quiz bowl, team competition and field events with other schools in the Southeast. Game-calling, telemetry, kayaking, skeet shooting, archery, dendrology, orienteering, and a host of other competitions were parts of the Conclave. In addition, several workshops provided first-hand experience with a number of technical skills. Conclave gave members a unique chance to interact with students from other universities and network with professors for further education.



Game calling winners.



2004 NCSU Conclave Quiz Bowl team:
(from left) Ed Corey, sr., SFW; Jennifer Freeman, sr., SFW; Liz Jones, jr., Zoology; Alison Price, sr., SFW.

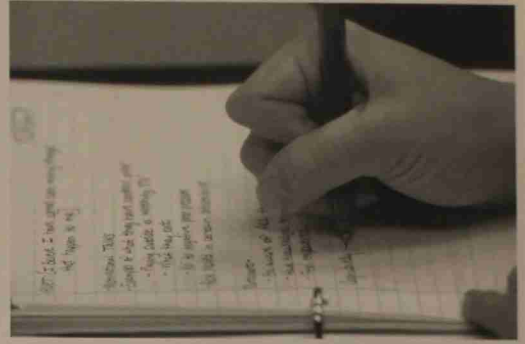


Team competition...requires teamwork!

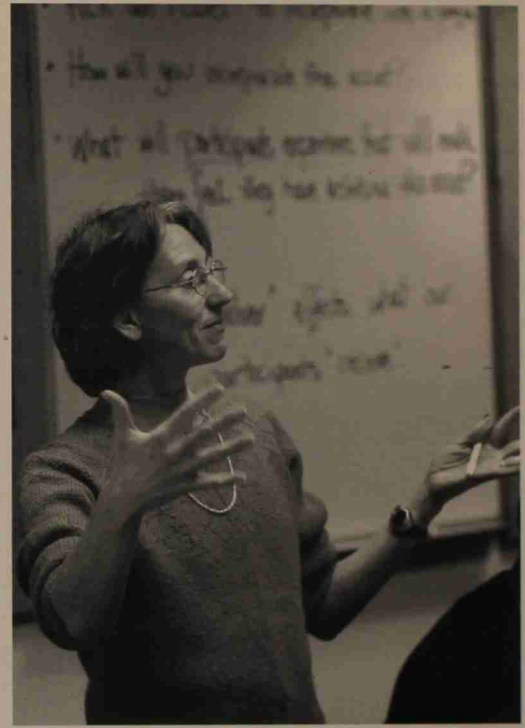
Of the 19 colleges participating in this year's Wildlife Conclave, NCSU's results were:

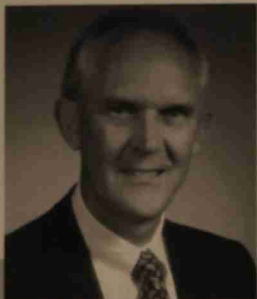
- 1st place overall
- 1st place team competition
- 2nd place quiz bowl
- 1st place in duck calling: Brett Carter, sr., SFW
- 1st place in goose calling: Sam Williams, sr., SFW
- 2nd place in non-game calling: John Hyatt, sr., SFW
- 1st place in black and white photos and color slides: B. Phil Howell, jr., SFW
- 3rd place in art: Jessica Kube. so., HORT SCI

...Go Pack!



Department of
**Parks, Recreation, and
Tourism Management**





Dr. Doug Wellman

Department Head's **Statement**

PRTM has a remarkable legacy of leadership. Founding department head Thomas I. Hines served for 30 years, M. Roger Warren for 9 years, and Phillip S. Rea for 16 years. Their vision and energy, applied over the past 54 years, contributed greatly to the department's widespread recognition as one of the very best in the nation. From the vantage point of my eight months trying to fill their shoes, I am awed by their accomplishments.

I came to this department after 13 years at NC State. From 1990–1997 I served as associate dean for academic affairs in the College of Natural Resources, and from 1998–2003 I was the director of the university's Faculty Center for Teaching and Learning. During these 13 years, I taught a number of PRTM courses and participated in departmental affairs. I thought I had a pretty good understanding of the department. But, in the short time I've been department head, I've developed a much deeper understanding and appreciation for the quality of the students, staff, and faculty in PRTM, the multitude of exciting opportunities we face, and the warm collegiality of everyone in the department.

Academic Programs

Our first mission is teaching and learning, and we do a lot of it. Our programs are popular, and enrollments are at record highs. At the start of this academic year, 405 undergraduate students, 50 masters students, and 20 doctoral students were enrolled in PRTM degree programs. With a total of 475 students, PRTM is one of the largest departments of its kind in the nation and accounts for roughly half the students in the College of Natural Resources.

Undergraduate enrollments are up 13 percent over last year's thirty-year high. At the graduate level, it is quantity; the great majority of student course evaluations are above a 4.0 on a 5.0 scale, four students in our three-year old doctoral program have already landed good faculty positions, Aram Attarian won the college's Outstanding Teacher award, and Roger Moore was nominated for the Alumni Distinguished Undergraduate Professor award.

Growing interest in sport management is driving expansion of our undergraduate enrollments. In response, a faculty and student team is now at work on the development of a new sport management degree program. We recently completed the first phase of this process, and we now have one year to develop a formal proposal. At the same time the sport management committee is at work, other committees are examining our undergraduate core curriculum and our doctoral program for possible improvements. All three committees are working to define ideal programs, while bearing in mind that everything must come together in ways that improve the overall work of the department.

There were several changes in faculty this year. New to the department this past year is Stacy Tomas. Stacy is an extension specialist working in the area of sustainable rural tourism development. Originally from rural East Texas, she is now in the final stages of her doctoral program at Texas A and M. After 16 years as department head and over 30 as a member of the PRTM faculty, Phil Rea entered the phased retirement program. So far, however, his behavior has not looked like retirement, as least as that is usually conceived; he has conducted major reviews of a number of national programs, taught PRT 250 to a class of over 60 students, begun work on a textbook, and contributed to the profession and department in countless other ways.

Research

The scholarly work of departmental faculty continues to grow in diverse directions, with work in such areas as linear recreation corridor management, recreation ecology, sports for youth fitness, outdoor adventure programming, tourism marketing and evaluation, and applications of geographic information systems (GIS) technologies. Beginning next year, the College of Natural Resources will support several new research initiatives. Hugh Devine will lead development of a university-wide Geo-Spatial Sciences program. Work of this program will include professional education as well as research on new technologies and GIS applications. Gene Brothers and Larry Gustke will lead a Sustainable Tourism program that will involve partnerships with other states and universities. Among other things, this program will develop monitoring and assessment procedures to provide a solid base of knowledge information for guiding this important and growing sector of the economy.

Faculty and graduate student research is not something that gets in the way of undergraduate teaching, as is sometimes asserted. Quite the contrary, research provides the understanding, new concepts, intellectual excitement, and case studies that enrich classroom learning.

Outreach and Engagement

PRTM is the national leader in providing formal continuing education and technical assistance. Three programs are conducted annually at Oglebay Park in Wheeling WVA: the Maintenance Management School, the Revenue School, and the Supervisors School. These practical programs, taught by leading practitioners, have upgraded the skill sets of thousands of professionals over the past 30 years. The Recreation Resources Service, funded by a long-term grant from the North Carolina Division of Parks and Recreation, provides assistance to local communities through individual consultations, technical training workshops, and help with planning and grant applications. Finally, the PRTM tourism group helps local communities and individuals design and market tourism programs that are economically, environmentally, and socially beneficial.

Beyond these formal outreach programs, many PRTM faculty members work with citizens and community groups to improve the quality of life. For example, Roger Moore is working with other faculty members on an interdisciplinary plan for the 160-acre site of the North Carolina Museum of Art; Kathy Hamilton-Brown is working with the town of Holly Springs on a recreation needs assessment; Annette Moore is among the campus leaders in service-learning, a form of experiential learning that links work in the community with work in the classroom; Michael Kanters has developed the charter "First Tee" program in North Carolina, through which underserved minority youth are introduced to the game of golf; Hugh Devine helps federal, state, and local resource management agencies make optimal use of spatial information technologies; Aram Attarian assists leisure and human services organizations provide high quality adventure recreation programs; and Beth Wilson continues to lead the immensely successful Senior Games program, which engages thousands of older North Carolinians in athletic and artistic competitions. Just as is the case with research, these faculty engagements enrich and enliven teaching and learning.

PRTM is truly a remarkable place. As you begin your careers, I hope you will tune in to all the exciting new directions we're pursuing. Our new electronic alumni journal, developed by PRTM alumnus and current doctoral student Barbi Honeycutt, should be interesting reading. Please stay in touch.



Rho Phi Lambda

The Alpha Chapter of Rho Phi Lambda has had another great year. We have continued many of the programs from the past. The club is continuously growing and is active as usual.

As a fundraiser this past fall the club had a contest between all the PRT students for a design for a PRT shirt. The winning idea came from Claire Mosley and Georgia Davis. The slogan used was "My Major's More Fun Than Yours". Rho students sat in the lobby of Biltmore selling them for 10\$ a shirt. We had great success with t-shirt sales. Thank you to everyone who was a part of that.

The Annual PRT Spring Banquet was held April 14 at the RBC Center. Over 125 professionals, alumni and faculty, staff and students came together to celebrate the year and honor outstanding students and faculty. These awards include: the Annual Lifetime Achievement, the Outstanding Teacher, the Graduate Student and Upper Classman, the Thomas I. Hines Outstanding Senior, and last, the Student-who-goes-the-extra-mile.



Suzanne Velonis, Kathleen Murphy, Melissa Bernhardt, Courtney Whorley, and Clare Moseley.



Lindsay Gentry enjoys Will Kiser eating out of her hand during the PRT 358 lab.



PRT students, Jon Peralta, Andrew Hawley, Joe Taylor, Bill Allen, Michael Rogers, Andy Crum, and Philip Mims, get into the pirate theme—aarrgh!

Rho Phi Lambda took an evening in December and gathered at Annette Moore's house to have a close the semester and to send off their fellow seniors. It is always great to have everyone including the new initiates together but yet sad to see the seniors go. Good Luck Seniors!

Rho Phi Lambda is an important student organization, teaching and requiring scholarship, leadership and service. It's the students of the club though who bring this club to what it is today.



Advisor Annette Moore with Mr. and Ms. Wolf.



Keith Nesbitt speaking at the PRT end-of-the-year banquet.



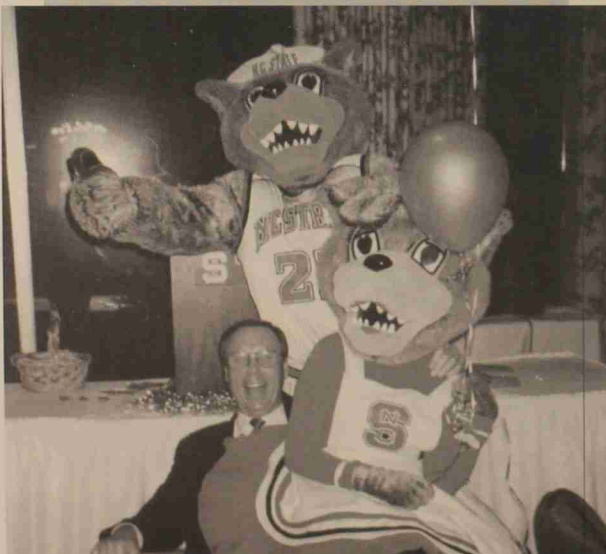
PRT 358 students Megan Hamilton and Brent Kilray interact with participants at the Garner Senior Center.

Fall 2003 Officers

- President: Kathleen Murphy
- Vice President: Shawn Line
- Secretary: Melissa Bernhardt
- Treasurer: Keith Nesbitt
- CNR Representative: Claire Mosley
- Sgt. At Arms: Julia Spencer

Spring 2004 Officers

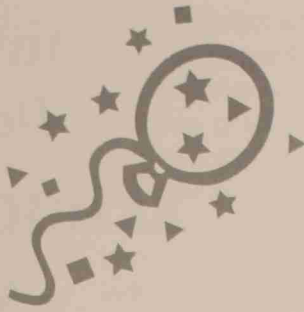
- President: Kathleen Murphy
- Vice President: Shawn Line
- Secretary: Melissa Bernhardt
- Treasurer: Keith Nesbitt
- CNR Representative: Lauren Reckerd



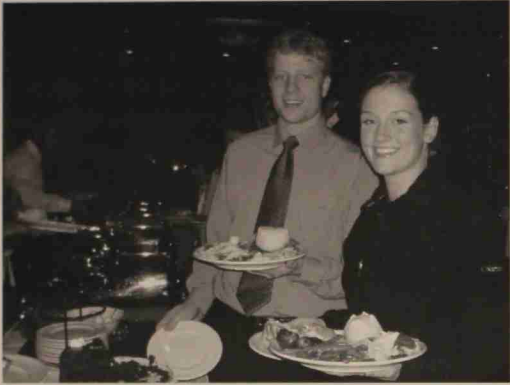
Dr. Phil Rea relaxing at the PRTM spring banquet.



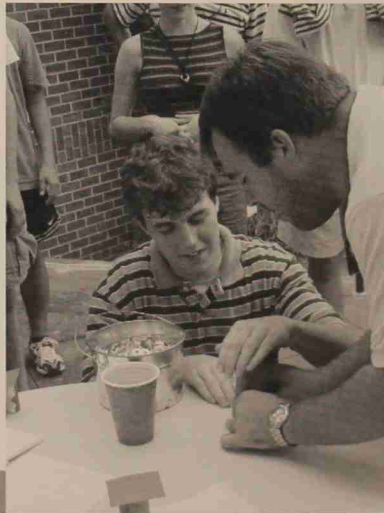
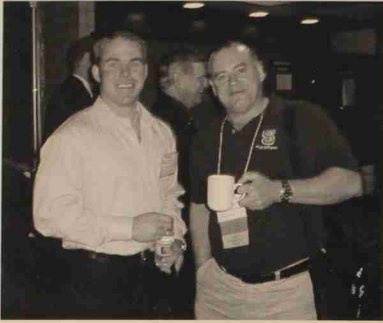
Hadley Stark tries her hand at the Piñata.



Best of
Showfest



Department of **Wood and Paper Science**



department of
wood & paper@science



Dr. Michael J. Kocurek

Department Head's Statement

NC State University has the largest *Department of Wood and Paper Science* in the United States. The two programs, *Paper Science and Engineering*, and *Wood Products*, were established to create a public/private partnership to meet the educational, research and outreach needs of the second largest manufacturing industry in North Carolina and the largest in the South—the forest products industry. It is our vision and plan that the Department of Wood and Paper Science at NC State University will be an anchor program that will help lead our forest products industry to new levels of performance, through research with new products, and creation of a technologically advanced workforce. Our Pulp and Paper and Forestry Foundations will be a major catalyst and partner.

Education

The Department had a successful year in spite of tight budgets. The total enrollment was 165 undergraduates (125 Paper Science and 40 Wood Products) and 24 graduate students, including 7 distance learning degree candidates. While enrollments at our peer institutions have experienced very significant declines, our recruiting activities by faculty, students, industry and our coordinator Lesley Grieco have maintained our enrollment in Wood Products and in Paper Science and Engineering (32 freshman this Fall 2003), and established key relationships with high school science teachers and community colleges.

Summer internships and semester co-op positions were provided for 100% of the rising seniors and 9th semester seniors. This will enhance the value of these graduates of the class of 2004. We are very grateful to the corporations, mills, and suppliers who supported this most critical of all professional development activities. By May graduation, 80% of the seniors had accepted offers of industry employment or graduate school, with 96% now placed as of this report. Placement this year is on a similar schedule.

Accreditation as an engineering program is scheduled for fall 2004. The name of our program will become Paper Science and Engineering. Courses will remain largely the same, but with additional emphasis on assessments of student progress. We will remain part of the College of Natural Resources but will be jointly administered by the College of Engineering. Wood Products will also be involved in re-accreditation in spring 2005.

Faculty

One new faculty member joined the Department this year. Orlando Rojas, Assistant Professor (Paper Science and Engineering) received his PhD in Chemical Engineering from Auburn. His most recent professional experience was as a visiting scientist at the Royal Institute of Technology in Stockholm Sweden. Orlando's area of teaching is paper science and chemical engineering. His research area is surface and colloidal science and materials. He has published 27 journal articles and 41 proceedings.

Continuing Education

The Master of Wood and Paper Science degree was the first, and remains the only, distance learning graduate degree in the world. It is designed for individuals who desire to further their technical education and careers without leaving their jobs. Currently, 30 industry professionals are taking at least one course each year, and seven are pursuing the Masters Degree.

The Department conducted 13 major short courses for industry, including our hands-on workshops for Pulp and Paper Basics, Workshop, Wood Gluing, Wood Drying, and Recycling Workshops, the Science of Papermaking and Recycling Workshops, and the Wood Science and Wood Products Workshops for Science Teachers.

Research

The faculty produced 87 scholarly publications last year in a wide array of areas important to the industry:

- Wood Chemistry and Forest Biomaterials (11)
- Recycling (6)
- Wet End Chemistry/Papermaking (4)
- Pulping and Bleaching (16)
- Wood Engineering (10)
- Wood Science (13)
- Furniture Manufacturing and Marketing (19)
- Wood Machining and Tooling (9)

The faculty also made a total of 63 technical presentations at conferences.

While the areas represent a core of fundamental and applied research, industry needs and scientific opportunities have prompted new initiatives. The first of these is the *Forest Biomaterials Initiative*. NC State has the strongest combination of Pulp and Paper, Wood Products, and Forestry in the world. We have an opportunity to advance the competitiveness of the industry by focusing our combined strength to develop a Forest Biomaterials Research and Education program.

Goals of the Forest Biomaterials Initiative include understanding the generic biological processes, by which wood and its components are produced and controlled, genetically engineer wood, fiber, biopolymer, and chemical products, and engineer new products from these new, current, and recycled feed stocks and develop new process technology for the production of new materials. In addition to the training and education of scientists and engineers, a new PhD program in Forest Biomaterials will also be investigated.

Another opportunity that focuses on NC State's and our Departmental strengths is a new *Sustainable Wood Housing and Construction Research and Education Initiative*, which is a joint effort between Wood Products, Extension, and selected Pulp and Paper Faculty. The focus here is affordable wood housing that can last for centuries:

- Durable Design
- Construction Techniques
- Wind Resistance
- Moisture Resistance
- Energy Efficiency
- Wood Treatment and Preservation
- Recycling of Wood Materials

NC State has the largest group of research and teaching faculty in Paper Science and Engineering, and Wood Products, among all peer institutions in the U.S. These strengths allow us to focus on key areas like the new forest biomaterials and wood housing and construction initiatives while maintaining our core mission to serve the technical manpower needs of the pulp and paper, wood products, and allied industries.



Forestry Products Society

It is important for students in the wood science program to develop and maintain as many contacts as possible in the wood products and wood products related industries. The purpose of the Forest Products Society here at NC State is to provide our members with organization and professional affiliation. Our objective is to increase the awareness of students to industry conditions and to increase the industry's awareness of one of the best programs in the nation.

The FPS club meets around every two to three weeks with a meal provided for the members and guests. This year's meetings had a variety of speakers from the wood products industry. These speakers informed us on the companies they were representing and they also spoke about experiences inside the industry. In certain situations the club hosted interviewers who gave the students an informal opportunity to ask questions about what to expect and what to be aware of during the interview.



Matt West machines dust frames on the tenoner.

Through fundraisers, the FPS club funds many of these opportunities offered to the members. This year's fundraiser, like last year's, was the production and selling of wooden clocks. The club has met periodically throughout the semester in Hodges Wood Products Lab to manufacture these wonderful wooden clocks.



Dr. Kelly directs the class how to properly mix the thermosetting adhesive used to make plywood in the practicum.

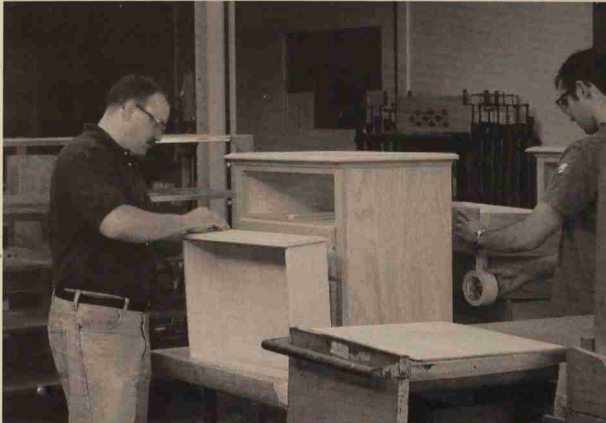
The finest achievement of this year's activities has to be the Students Mentoring Students Program. NC State's FPS Club and WoodLINKS USA set up a partnership last year that allows our undergraduate students to mentor high school students already associated with WoodLINKS USA. WoodLINKS USA is a program that links human resources to the wood industry. This program works with a number of high schools, post-secondary institutions, and industries across the nation. It offers practical training opportunities, career counseling, and information for students and teachers. NC State has taken the leading role in promoting wood products programs across the nation because we were the first, and still the only, to offer this service to WoodLINKS students.

The FPS Club has set up a website that allows the WoodLINKS USA students to e-mail their mentors and ask questions regarding technical and scientific issues, the wood industry, the wood products program, and college life. The mentors in turn will research the question and respond with a prompt answer. This allows the mentors to reflect on what they have learned and accomplished during their college career, and offers the high school students the opportunity to understand that NC State's Wood Products program is the best available.



Tewes and Pete Kosturko hand polish the front of a finished chest.

The course is capped off with a full week of tours to different facilities around the area. Here, the student sees classroom topics in real working situations. The students are encouraged to study the different processes that each company uses to produce their products. At the end of the five weeks the students are confident that they are getting the best education available here at NC State.



Gordon Krise sands a drawer front for his three drawer chest.

One thing that sets our program here at NC State apart from other programs throughout the nation is the Summer Practicum. The practicum is five weeks of unique hands-on experience that gives the students the opportunity to learn the details behind wood processing. The course is set up to resemble the operations of a furniture manufacturer. The class teaches the proper methods of drying, machining, gluing and finishing of different wood products. The concepts are taught in the classroom and then the students put the concepts to work in the lab. Students use their knowledge from learning about wood products to construct a three-drawer chest. Almost every part for the construction of the chest is produced in the lab. The class peels logs for veneer, makes plywood, makes the tops and the end panels for the next year's class and machines every part for their chest. The student finishes their chest-of-drawers and is given the freedom to add any characteristics that they can imagine.



The Practicum class of 2003 proudly two cases from the summer.

TAPPI/PIMA

TAPPI/PIMA represents the Technical Association of the Pulp and Paper Industry and the Paper Industry Management Association. The student chapter serves as an outlet for students to interact with pulp and paper industry representatives through providing a forum for presentations by companies and industry professionals. TAPPI gives students the chance to learn about technical topics, develop their leadership skills, travel to professional conferences and interact with members from other classes and faculty. TAPPI also strives to be ambassadors for the Pulp and Paper Department and the College of Natural Resources.

The student chapter has a close relationship with the pulp and paper industry. Prenights give company representatives the opportunity to showcase their company and inform students of different career paths in the industry before holding interviews.



Above: Sara Welter, Dianna Hoffert, and Valerie Goins prepare for the next session at TAPPI national conference in Chicago.

Below: Stephen Stroud testing the strength of his paper at orientation.



The past year has been successful for TAPPI. The club is involved in service activities such as tutoring young students through the PhD program and by providing papermaking demonstrations at local elementary schools to help promote interest in the sciences. Every spring TAPPI also participates in Service Raleigh, the citywide program that is committed to the service and beautification of Raleigh.

In October last year, TAPPI members attended the 2003 TAPPI National Conference in Chicago, Illinois. Everyone got the opportunity to interact with members of the industry from around the country while attending conferences on current technology and economics. Also, a group of students traveled to Baton Rouge, LA for the National Student Summit, where students around the country meet to discuss current research in the field.

In November, TAPPI held its 4th Annual Alumni Tailgate before the NC State versus Maryland game. Students, faculty, alumni and their friends and family were invited to come, enjoy a meal, and relax before kickoff. Barbeque, jokes, good weather and football made for a day that everyone could enjoy.

- President: Courtney Pate
- Vice President: Will Salley
- Secretary: Mary Johnson
- Treasurer: Mike Wilson
- Programs Chair: Chris Duncan
- Publicity Chair: Rebecca Robertson
- Activities Chair: Sara Welter
- Senior Class Representative: Chris Foess
- Junior Class Representative: Daniel Boren
- Faculty Advisor: Dr. M.V. Byrd
- CNR Council Representative: David Abrecht

TAPPI 4th annual alumni tailgate.



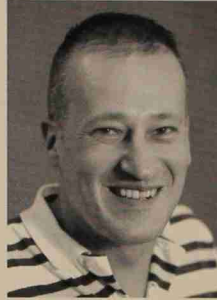
Seniors



Tim Armstrong



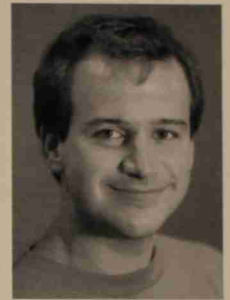
Jamie Bushnel



Janderson Cibils



Crystal Currie



Joseph Davidson



Gena Davis



Dana Dickerson



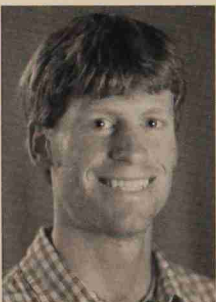
Jonathan Dunn



Rachel Earnest



Regina Egbert



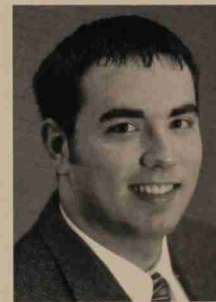
Gil Elhart



Sara Ellis



Christopher Foess



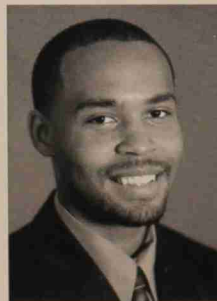
David Foster



Johanna Higgins



Keri Lake



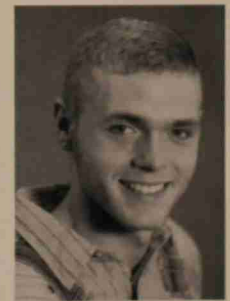
Anthony Lee



Jason Locklear



Michael Mixon



Justin Moretz



Alnesha Moses



Dustin Mountcastle



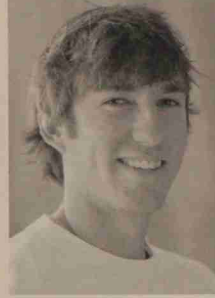
Chris Neggers



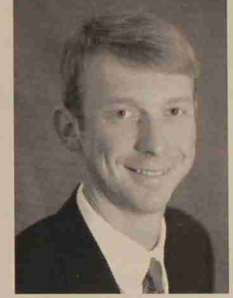
Keith Nesbitt



Kelly Newlin



Jimmie Overton



Courtney Pate



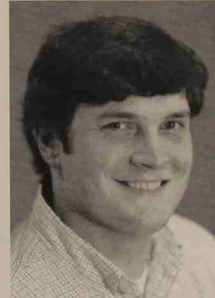
John Patterson



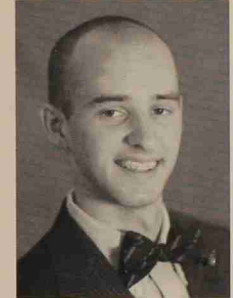
Susan Roszko



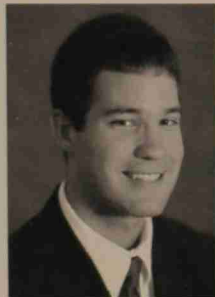
Jacob Rothrock



Kevin Settles



Will Salley



Michael Smith



Heather Smyth



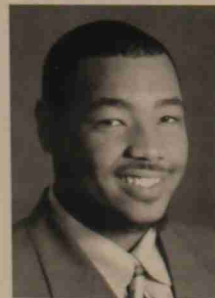
Jonathan Stickley



Andrew Thompson



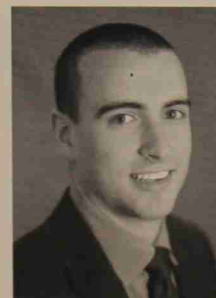
Crystal Twiss



Shavoya Underdue



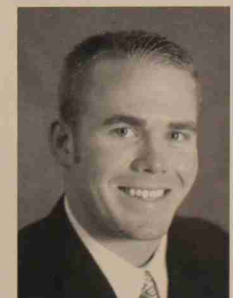
Jeremy Watters



Mike Wilson



Megan Winfield



Mack Young

2003 Graduates

Department of Forestry

- **Bachelor of Science in Environmental Technology**
THOMAS BURT COUSINS
JANET FORMOSA LIU
PAUL JAMES MICKLER
ERIKA MARIE RIEGLER
NICHOLAS WADE TAYLOR
BRENT NATHANIEL LAWS
MARY LAUREN TREVATHAN
- **Bachelor of Science in Forest Management**
ELIZABETH CAMERON LEE
- **Bachelor of Science in Natural Resources, Ecosystem Assessment**
JAMIE LEE DUNBAR
CHRISTOPHER L. FLOWERS
BENJAMIN NELSON FURR
ROBERT BRYAN STALLINGS
BRETT AARON LOCKERT
- **Bachelor of Science in Natural Resources, Policy and Administration**
LAWRENCE F. THOMPSON
- **Bachelor of Science in Fisheries and Wildlife, Wildlife Concentration**
JOSHUA LEE BIESECKER
ADRIAN LEE CARPER
REBECCA DAWN EBEL
ANNA ESTELLE KROYER
BRANDY E. MANGUM
JAMIAN KRISHNA PACIFICI
- **Bachelor of Science in Fisheries and Wildlife, Fisheries Concentration**
COREY EDWARD ADAMS
JOHN RICHARD BARR
DANIEL W. BLACKBURN, JR.
EVERETTE L. PETERSON, III
EDWARD G. MALINDZAK
PAUL DEMMING HUBERT, II
- **Master of Forestry**
ANDREA RUTH WADE
CURTIS MATTHEW BELYEA
CELESTE EVA BURNS
MELISSA MCELROY RUIZ
- **Master in Natural Resources, Hydrology**
AMY MELISSA FRAME
- **Master in Natural Resources, Policy and Administration**
JULIE RAMSEY GIBSON
VIRGINIA FRANCES KUNKEL
JONATHAN BRIAN SCOTT
- **Master of Science in Fisheries and Wildlife, Fisheries Concentration**
JAMIE REBEKAH HULL
KRISTEN ELISE NOVOTNY
- **Master of Science in Forestry**
ANDREW DANIEL BAILEY
ZHIYAN MAO
CHRISTIAN RICARDO MORA
JESUS ALBERTO ESPINOZA
LESLIE PHELPS NEWTON
- **Doctor of Philosophy in Forestry**
HUA LI
FRANCISCO JOSE FLORES
JAMES EDWIN GRISSOM
TERENCE KEITH STANGER

Department of Parks, Recreation and Tourism Management

- **Bachelor of Science in Parks, Recreation and Tourism Management**
BRADLEY JESSUP BELL
BRENT CODY BLAYLOCK
ERIN LAWTON BRINSON
STEVEN ANTHONY COX
CARL RANDALL DAVIS, II
ROBERT JACKSON DAVIS, II
DREW PATRICK DEJOY
DANA EARLE DICKERSON
EDUARDO A. GONZALEZ
DONNA LAINE GRIFFIN
JOHANNA MARIE HIGGINS
STEPHEN B. HOUGHTON
CHRISTINA M. HOWELL
SEAN C. IANACONE
ZACHARY DANIEL KENNEDY
AMELIA FRANCES LABADOR
MELISSA ANNE LEWIS
SEAN HILARY LOCKLEAR
MATTHEW JOHN MADRAS
WILLIAM MICHAEL MASSEY
KYLE SCOTT OSTEEEN
JIMMIE R. OVERTON, JR.
JONATHAN HAROLD PAYNE
PRISCILLA ANN PEACOCK
LEAH CLAIRE SABINE
JASON PAUL SIMPSON
JULIA LEIGH SPICER
TREMAYNE R. STEPHENS
IVEY WITHERS STEWART, IV
RONALD SPENCER THOMAS
DANIEL D. WALKER
BESS STEPHANZ WENTZ
KEVIN R. WILSON
MARK DANIEL WILSON
IVIN ANTONIO WRAY
ANGELA CAROLEEN HUBBS
CHRISTIE ELIZABETH RINK
AUSTIN DOUGLAS RORIE
SUZANNE G. VELONIS
RENE PHILIPPE D. WISSEL
- **Master in Natural Resources, Outdoor Recreation**
MICHAEL WAYNE SMITH
- **Master in Natural Resources, Spatial Information**
JENNIFER RUSSELL HALL
- **Master in Parks, Recreation and Tourism Management**
JOHN GARRETT BALL
KELLIE ANNE CHAPPELL
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NILES THOMAS EGGLESTON
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- **Master of Science in Natural Resources, Spatial Information**
MARK PRESTON SMITH
- **Doctor of Philosophy in Parks, Recreation and Tourism Management**
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Established in 1929, the College of Natural Resources is one of the oldest and, currently, one of the largest schools of its type in the nation. The College includes three Academic Departments: Forestry; Parks, Recreation and Tourism Management and; Wood and Paper Science. All offer undergraduate and graduate educational opportunities and conduct teaching, research and extension activities directed to understanding and contributing to the maintenance of a high quality environment.

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The mission of the College of Natural Resources is to improve the use and stewardship of renewable natural resources. We seek to strengthen natural resource management, enhance environmental quality, increase productivity of forest enterprises, expand recreation and tourism opportunities and encourage sound regional economic development. To these ends we provide superior professional education, discover new knowledge and disseminate credible and timely information.

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