

SUMMER 2005



Jeanne Jones, associate professor in wildlife and fisheries (second from right), is the 2004 Mississippi Case Professor of the Year. Graduate students (l-r) Jennifer Kross, Rachael Gonzalez and Sarah Gallagher are learning about salamanders and other Mississippi wildlife.

Forest Resources

Forest Resources DEAN'S COMMENTS

Thank you for opening this magazine and for reading this article. Thank you for helping your university and participating in your college activities. We extend our hand of cooperation in return.

Today is my first day on the job and I had the opportunity to meet with our graduate students. Their zeal for learning, their diversity of interests, and their attitude were impressive. I thanked them for choosing MSU as their university.

I have been asked, "What will you do as the new dean? What is your agenda?" My response is the agenda is not mine, but ours! We must work together to set our course; your participation is important. For your support and participation, we are thankful.

As many of you know, our college and research center have had some difficulty the last few years, with significant reductions in state funding and several changes in leadership. These have been tough times for us, but we have weathered the storm. Special thanks to Drs. Karr and Richards and others who guided us through.

But, now is a new day, and we are ready to move forward. With the reality of fiscal restraints, we must carefully plan for priorities, practice conservation with our limited resources, and evaluate based on performance.

I am thankful for MSU administrative support committed to me by President Charles Lee; Dr. Vance Watson, vice president for the division; and Dr. Peter Rabideau, provost. They have assured me I have their full support to help the college and research center succeed. They expect success. We should all be thankful that they recognize the opportunities we bring for national prominence to the university and the state.

With their support comes the expectation that we will provide results of excellence in discovery and education. I agree. With planning through conservation, we will set priorities. We will strive for excellence. We will enhance our performance, evaluate based on productivity, and adjust.

The *State of the Future* capital campaign remains in full swing. Our college has a goal of \$14.8 million, and we have raised \$4 million through gifts and pledges. Thank you for your generosity; I will work diligently over the next year to raise the remaining \$10.8 million to reach our targeted goal. We need your help. Please respond and let me know your interest in designated areas. We are in desperate need of new equipment, scholarships, faculty and student travel support, and chaired professorships. You can designate into any area you wish. Contact Jeff Little at little@foundation.msstate.edu or 662-325-8151.

We need your help, and we are thankful for your support. Thank you for the opportunity to serve as your dean.



George Hopper



Retirement of two long-time administrators announced

Interim dean/director Bob L. Karr and interim associate director Douglas P. Richards announced their retirement effective June 30.

Karr, a native of Texas, has been with the university since 1979, serving as a professor in the forestry department, and associate dean, and interim dean/director of the College of Forest Resources and Forest and Wildlife Research Center.

Richards, a native of Canada, has been with the university since 1977, serving as head of the forestry department until 2003 when he assumed the position of interim associate director of the Forest and Wildlife Research Center.

The two have provided both the college and center strong leadership and stability over the years and will be sorely missed.

"We must work together to set our course"



MSU President Charles Lee presented the 2005 Ralph Powe Research Excellence Awards to forest products professor Michael Barnes and environmental health sciences professor Janice Chambers.

Barnes, Chambers win MSU's coveted Powe research award

Two internationally recognized Mississippi State scholars—one in forest products and the other in environmental health sciences—are co-winners of the university's 2005 Ralph E. Powe Research Excellence Award.

Forest products professor H. Michael Barnes and environmental health sciences professor Janice E. Chambers share this year's honor, which recognizes faculty researchers making significant contributions to the economic welfare or cultural growth of the university, state and nation.

"We had such outstanding nominations for the award this year, it was almost impossible to pick one as the best," MSU President Charles Lee said in announcing the selections at the annual research awards banquet earlier this week. "Two stood out from the rest, so this year we have two Powe award winners."

Given each spring semester, the Powe award is a memorial to Mississippi State's research vice president who died in 1996.

Current research vice president Colin Scanes and Vance Watson, vice president for agriculture, forestry and veterinary

medicine, presided over the presentation of more than 30 other awards to faculty, staff and students during the Hunter Henry Center event.

A member of the MSU faculty since 1971, Barnes is a professor in the Department of Forest Products, Forest and Wildlife Research Center and College of Forest Resources. He holds bachelor's and master's degrees from Louisiana State University, and a doctorate from the State University of New York College of Environmental Science and Forestry.

"Mike has consistently demonstrated involvement in teaching, research and service," said nominator Liam E. Leightley. "These activities have been recognized within the state, and at the national and international levels."

Leightley, who is forest products department head, said Barnes has provided leadership in embracing new classroom technology and is widely published in his field. He noted that the Long Beach, Calif., native has completed investigative research on the use of vapor treatments of wood to provide dimensional stabilization and prevent decay and insect attack, particularly engineered wood products.

Ruth Cook named Alumna of the Year

Ruth Cook is the College of Forest Resources Alumna of the Year. Cook received her B.S. degree in forestry in 1982. She is the director of strategic planning for the Philadelphia-based Molpus Timberlands Management, LLC. Cook has previously served as the CFR Alumni Association president and been very active in supporting the college and MSU.

The Alumna of the Year award recognizes the achievements of outstanding alumni whose personal lives, professional accomplishments and community service best exemplify the mission of Mississippi State University.



Interim Dean Bob Karr congratulates Ruth Cook at the Spring awards banquet.

...se; your participation is important."

DEPARTMENTAL UPDATES

FORESTRY

- **Dr. Andy Londo** was appointed Extension forestry coordinator. MSU's forestry Extension program is the largest in the South.
- **Dr. Steve Grado** received the 2005 Research Award of Merit from the MSU chapter of Gamma Sigma Delta, the national agriculture honorary society.
- **Dr. Sam Land** retired at the end of June. Land served the department for 34 years and taught tree genetics and silviculture.
- **Tammy Coleman** was named the Bettye Douglas Memorial Outstanding Secretarial/Clerical Woman by the President's Commission on the Status of Women.
- Several forestry employees were recognized during the MSU Service Recognition Awards. Employees recognized for five years of service were **Clay Altizer, Cade Booth** and **Alexis Londo**. **Tammy Coleman, Laura Grace** and **Stephen Grado** were recognized for 10 years of service and **Juanita Mobley** for 25 years.
- **Dr. Anwar Hussain** was hired in February as a research associate I. Hussain works in the area of forest management and economics.

FOREST PRODUCTS

- **Dr. Sheldon Shi** joined the department as an assistant professor. Shi received his bachelor's and master's degrees at Northeast Forestry University, People's Republic of China. He earned his doctoral degree at Michigan Technological University. Shi's primary research interest is wood composites.
- **Dr. Mike Barnes** was elected vice president of the Forest Products Society. After serving two years, first as VP and second as president-elect, Barnes will become president.
- **Donnie Buckner** retired at the end of June. Buckner, a research technician, served the university for 28 years.
- Several forest products employees were recognized during the MSU Service Recognition Awards. Employees recognized for 15 years of service were **Jason Leng** and **Michael Sanders**. **Don Parish** was recognized for 20 years of service.

WILDLIFE AND FISHERIES

- **Dr. Wes Burger** received the 2004 Wildlife Conservationist Award from the Mississippi Wildlife Federation. The award

recognizes and honors those whose achievements in natural resource conservation deserve statewide recognition. MWF's Conservation Achievement Awards are among the most prestigious for conservation efforts.

- Two wildlife and fisheries employees were recognized during the MSU Service Recognition Awards. **Rodney Reed** was recognized for five years of service and **Troy Lindsey** was recognized for 10 years.
- **Jim Miller**, outreach/research scientist, retired in June. Miller has coordinated the Natural Resources Alternative Enterprises Research and Outreach program for three years. **Dr. Daryl Jones** assumed this position July 1.

DEAN'S OFFICE

- Employees in the dean's office recognized for five years of service at the MSU Service Recognition Awards were **Cathy Dinning, Roosevelt Harris Jr., John Morgan**, and **Tommy Wallace**. **Bridgett Carr** and **James Peterson** were recognized for 10 years of service and **Charles Burkhardt** was recognized for 25 years.



MSU alumnus now leading forestry department

A Mississippi State alumnus who most recently was sustainable forestry program manager for a nonprofit research institute is the new head of the university's forestry department.

After 15 years with the North Carolina-based National Council for Air and Stream Improvement, James P. Shepard returned to his alma mater to lead the 50-year-old

department.

"Dr. Shepard brings a wealth of academic and government experience," said Bob Karr, interim dean of the College of Forest Resources and research center director. "His research planning and project management experience, as well as his vast knowledge of hydrology and wetlands, will be an asset to Mississippi's forest industry."

U.S. education groups tap Jeanne Jones of MSU for highest honor

A 20-year wildlife and fisheries teaching and research veteran at Mississippi State is being recognized by two nationally prominent education-support organizations.

Associate professor Jeanne C. Jones received the 2004 Mississippi CASE Professor of the Year Award from the Carnegie Foundation for the Advancement of Teaching and the Council for the Advancement and Support of Education.

Created in 1981, the Professors of the Year Program is the only such initiative specifically designed to recognize excellence in undergraduate teaching and mentoring. Jones is among 46 winners selected from a total of nearly 300 nominations submitted from institutions around the country.

"For Dr. Jones and our other award-winning state professors of the year, teaching is not a job; it is a calling," said CASE president John Lippincott. "They are as dedicated to their students as they are to their disciplines and are exceptional in their ability to engage students in the learning process."

CASE is based in Washington, D.C.; the Carnegie Foundation, in Menlo Park, Calif. Representing nearly 2,900 colleges, universities and independent elementary and secondary schools, CASE is the largest international association of educational institutions. Carnegie is the world's only advanced study center for teachers and the nation's third-oldest foundation.

Jones earlier received several MSU teaching awards, including three from her department and two from the College of Forest Resources. She also was selected for a merit award for outstanding teaching from Gamma Sigma Delta agriculture honor society.

She holds a bachelor's degree in biology from the University of Southern Mississippi and master's and doctoral degrees in wildlife ecology from MSU.

In addition to academic degrees, she completed training in scientific illustration and photography at the University of Arizona and has earned recognition as an artist. Recently, she wrote a wildlife-oriented children's book titled "A Possum's Got to Do What a

Possum's Got to Do."

"Dr. Jones is an extremely productive faculty member, teaching three courses and advising 20 undergraduate students and six graduate students," said Rick Kaminski, a department colleague who made the nomination. "In addition, she serves on more than 20 graduate student committees in the departments of wildlife and fisheries, forestry and biological sciences."

In addition to departmental duties, Jones regularly conducts project reviews for landscape architecture majors who are integrating wildlife into their projects, Kaminski added.

Much of Jones' funded research has involved balancing ecosystem management and effective military training operations. Ecosystems management plans take a complete look at the soil, water, forest, and wildlife habitat resources on the installations to ensure that natural resources and military training coexist and complement each other.

Since 1987, she and a team of graduate students have worked to prepare and put into use long-range ecosystem management plans at posts ranging from Camp Shelby near Hattiesburg to Redstone Arsenal in Huntsville, Ala.

"Since 1998, nearly 30 undergraduate students have gained valuable research and management experience while working with her graduate students on a variety of funded research projects," Kaminski said. "Many of them have earned graduate positions, partly because of their research experience gained in association with Dr. Jones' projects."



Professor Dan Seale (l-r) of the forest products department received the faculty research award from the Office of Research in ceremonies held this spring. Research associate Michael Sanders of the forest products department received the Research Support Staff Award. Jennifer Kross, a master's student in the department of wildlife and fisheries, received the Graduate Student Research Award. Jared Eldridge, a student in the department of forest products, received the undergraduate award.

Research Awards

DEVELOPMENT UPDATE

State of the Future

Dear Friends,



In the decade that has passed since I received my diploma, Mississippi State University has grown in so many ways that it would take far more room to describe than I've been allotted in this note. New academic buildings have sprung up seemingly overnight and older ones have taken on new faces inside and out. The Sanderson Center has taken the place of the tin gym, and our athletic facilities have become competitive with any in the nation. The MSU family has done its utmost to make sure that this campus is an attractive, student friendly, and academically and athletically competitive institution. MSU has succeeded.

While new and improved facilities will forever be a priority, our immediate focus is on education and making sure that the individuals who come to teach and study at MSU have the support that they need to succeed. To address these needs the university has launched *State of the Future: The Mississippi State Campaign*. As the name implies, the focus is on the future of this university, which is of course, our students and our faculty.

Our college has set a goal of \$14.75 million. The majority of these funds are for endowed scholarships and fellowships, as well as endowed faculty positions. These funds will allow us to maintain and recruit top educators and students. The CFR has a reputation for excellence in our field, and in order to maintain and grow that reputation it is vital that we all become involved in the *State of the Future*. Please call me at 662-325-8151 to talk about your role in *The Mississippi State University Campaign*.

Jeff Little
Director of Development

STATE OF THE FUTURE

College of Forest Resources Campaign Goals

- Endowed Scholarships/Fellowships . . . \$2,700,000**
 - 15 scholarships @ \$100,000 each. (5 in each department)
 - 3 graduate fellowships @ \$150,000 (1 in each dept.)
 - 3 post doctoral fellowships @ \$250,000 (1 in each dept.)
- Endowed Faculty Positions . . . \$6,000,000**
 - 3 chairs (one in each department) @ \$1.5 million each
 - 3 professorships (one in each department) @ \$500,000 each
- International Studies Program . . . \$1,000,000**
- Phase III Thompson Hall Expansion . . . \$5,000,000**
- Annual and Other Campaign Support . . . \$50,000**
- Total Goal . . . \$14,750,000**



With a commitment of \$25,000, the Greater Jackson Chapter of the National Wild Turkey Federation recently established the Boyd Burrow Greater Jackson Chapter National Wild Turkey Federation Endowed Scholarship.

In 1990, a group of Jackson-area sportsmen concerned about the future of wild turkey in Mississippi formed the Greater Jackson Chapter. After becoming one of the state's best fund-raising conservation organizations, producing hundreds of thousands of dollars for state

National Wild Turkey Federation gift to fund endowed, annual scholarship

and national turkey research, the Greater Jackson Chapter, led by long-time member and passionate turkey hunter Boyd Burrow, sought ways to raise revenue for more in-state projects. Thus was born the Wild Turkey Scramble golf tournament in 1994. Upon Burrow's sudden death in 1996, the tournament was renamed the Boyd Burrow Memorial Wild Turkey Scramble, with the goal of using proceeds to establish a scholarship program. In 2004, after its most successful year, the Greater Jackson Chapter established the Boyd Burrow Greater Jackson Chapter NWTF Endowment Fund at Mississippi State University's College of Forest Resources.

Boyd Burrow Greater Jackson Chapter National Wild Turkey Federation scholars must be full-time students at MSU enrolled in the college. Students must be classified as sophomores, juniors or seniors and

demonstrate acceptable academic achievement and show promise of an outstanding career in forestry, wildlife and fisheries, or forest products.

The Greater Jackson Chapter of the NWTF also established the Boyd Burrow Greater Jackson Chapter NWTF Annual Scholarship which will be awarded until the endowed scholarship is fully funded and can be awarded.

The NWTF is a 525,000-member, grassroots, nonprofit organization with members in 50 states, Canada and 11 other foreign countries. It supports scientific wildlife management on public, private and corporate lands, as well as wild turkey hunting as a traditional North American sport.

Forest land, a special kind of asset

Many people are fortunate enough to own forest land, an investment that often increases in value over the years. While growth of such an asset is certainly preferred, managing the land to maximize its productive capability can be a challenge for owners.

As you and your financial adviser plan for your future, consider the benefits of giving your appreciated property to the College of Forest Resources. A lifetime income through a trust arrangement, called a life income agreement, could provide these benefits:

- Bypass capital gains tax,
- Reduce current taxes through a charitable deduction,
- Select a competitive rate of return that is fixed or variable,
- Reduce size of taxable estate, if applicable, and
- Ensure the future of forestry education and research.

For more information about giving appreciated property in return for lifetime income, telephone Jeff Little at 662-325-8151 or e-mail him at jlittle@foundation.msstate.edu.

Your inquiry will remain strictly confidential.



FACULTY SPOTLIGHT

Organizations partner to promote economic development, fight climate change

In April, more than 100 acres of land along the Mississippi River outside Greenville and Cleveland was transformed in the fight against climate change. Personnel from the Carbon Fund and Entergy and Rick Maiers of the department of forestry, planted more than 33,000 hardwood trees in a partnership to use carbon sequestration to reduce carbon dioxide levels in the atmosphere. The project is under the direction of Maiers, an assistant professor of hydrology.

"Carbon dioxide is a chemical compound found in the earth's atmosphere that acts as a greenhouse gas. A certain amount of CO₂ in the atmosphere is good because it 'shields' the earth, holding in heat from the sun's rays," Maiers said. However, if there's too much CO₂ in the atmosphere, heat cannot be released. Most scientists agree excessive levels of CO₂ and other greenhouse gases in the atmosphere are causing a gradual rise in the earth's temperatures—climate change, Maiers added.

Carbon sequestration helps mitigate this effect by "storing" the CO₂ instead of allowing it to remain in the atmosphere. Hardwood trees help fight climate change

because they remove CO₂ from the atmosphere during photosynthesis and store it.

The project also is part of a broad-based effort to study the most cost-efficient method for planting bottom-land hardwood trees in the Mississippi Delta. More and more Delta farmers are converting marginal cropland into timberland. Faculty and students from Mississippi State University's department of forestry will conduct long-term research on two 40-acre plots to determine the most cost-efficient planting method and to study how planting methods can affect the ultimate economic recovery of the initial investment. As the trees mature, researchers in MSU's department of wildlife and fisheries will study which types of wildlife make their home in this new habitat.

Field biologists and foresters from the Carbon Fund and Entergy will plant the



Rick Maiers

trees in three separate plots on property owned by Entergy Mississippi's Gerald Andrus and Delta steam electric generating stations.

For more information, contact Maiers at 662-325-7481 or at rmaiers@cfr.msstate.edu.

FACULTY SPOTLIGHT

Restoring prairie diversity

Sam Riffell, a new faculty member in the department of wildlife and fisheries, is working with private landowners to monitor prairie restoration throughout Mississippi's blackland prairie. The restoration areas will be planted in native grasses this spring.

"Our objective is to increase the probability that grassland restorations succeed," Riffell said. "One of the monitoring techniques is the development of a butterfly-based indicator of restoration success."

Butterflies are used as indicators because they are herbivores so their presence depends on a sufficiently developed plant community. Also, butterflies are easy to identify in the field, widely distributed geographically, and butterfly communities often respond to human activities in the same fashion as other organisms like birds.

"Knowledge on how to accommodate both biodiversity—butterfly communities—and agricultural production—grazing cattle—on grassland tracts is important to conserving natural resources on privately owned land," Riffell said.



Sam Riffell

Producing straighter lumber

New technology under development by MSU associate professor Rubin Shmulsky may take the warp out of wood.

Warp causes significant loss in both grade and value of pine dimension lumber. For many reasons, two-by-fours are the most susceptible to warp and subsequent value loss. In Mississippi alone, it is estimated that warp costs the 14 largest sawmills more than \$20 million a year.

Shmulsky's research focuses on a restraint-based drying procedure. The procedure has shown initial success with respect to reducing warp in pine two-by-fours in MSU's pilot-scale kiln.

"Warp is not only a cause for value loss but it also is an obstacle to market

acceptance," Shmulsky said. "To bolster the markets for Mississippi and regional producers, there is a critical need for improving the straightness characteristics of local yellow pine lumber."

Imports have increased throughout the country with many builders selecting Canadian lumber over Southern yellow pine due to its dimensional stability and straightness characteristics. The development of a device that can produce straighter lumber will be of significant value to sawmills, forest landowners and consumers, Shmulsky added.

It is anticipated that commercially viable technology can be developed relatively quickly from this new restraint system.



Rubin Shmulsky

Reversing the trend, professor works to restore bobwhite quail

The whistle of the bobwhite quail—"bob-bob-white, bob-bob-white"—evokes fond memories of growing up in the South. Each spring, the whistle can be heard throughout the countryside as male bobwhites use it to attract females. It's a sound, however, that's heard less and less often.

Bobwhite, along with sparrows and robins and other grassland birds, are declining in numbers because their habitat is shrinking.

"The reason they are in trouble is because we have converted virtually all of our native grasslands to agricultural use or to non-native forage grasses," said Wes Burger, professor and avian biologist in MSU's Forest and Wildlife Research Center.

"Across the entire continental U.S., these birds are in danger, they are in decline."

Burger has been studying bobwhite quail ecology for 20 years and is considered a national expert on the use of agricultural landscapes to increase habitat for the popular game bird. His research began in the Missouri prairies and row crops that bobwhite call home.

"Most grasslands and prairie systems have been converted to agricultural production over the past few decades, leaving just small populations of bobwhite remaining in the little idle corners and the strips of grass on the edge of crop land and pastures," Burger said.

To address the loss of habitat and subsequent decline in grassland bird species—including the bobwhite quail, Congress created the Conservation Reserve Program, or CRP, as part of the 1985 Farm Bill. The CRP enables farmers to enter into contracts with the Department of Agriculture to take highly erodible land out of production and receive annual payments for returning the land to permanent vegetative cover and using practices that lead to wildlife habitat development.

"Federal conservation programs are tools that we can use to create, in agricultural systems, habitats that birds are dependent on," Burger said.

Since 1989, the MSU professor has been monitoring the success of CRP fields in increasing bobwhite quail and grassland

birds.

"CRP fields require management, but one of the first things we noticed was that some of the management practices can have a negative effect," Burger said. "For example, landowners were creating habitat and then destroying it by mowing the fields right during the nesting season."

Part of Burger's work is the study of how necessary disturbances, such as disking, prescribed fire and herbicide applications, can be planned to have the least impact on habitat. He also has evaluated the environmental benefits of federal farm practices.

"The Natural Resources Conservation Service, which has the technical responsibility for conservation programs, was concerned about the effect on soil erosion of planned disturbances," Burger said. "With the help of wildlife and fisheries agencies throughout the country, we conducted a series of studies in Missouri and Mississippi that demonstrated that a planned disturbance had little effect on soil erosion."

Because of this research and other similar studies, the NRCS now cost-shares planned disturbances on CRP sites with landowners.

An additional benefit of the evaluation of CRP lands for wildlife habitat has been the identification of practices that can easily be added to a production agriculture system.

"Agricultural producers are the stewards of some of America's most important natural resources and are often interested in enhancing wildlife habitat value if management practices can be implemented without compromising their agricultural production goals," said Ed Hackett, wildlife biologist for the NRCS. "One practice is the use of field borders—a non-crop strip of vegetation anywhere from 20 to 150 feet around the outside edges of fields that has soil erosion and water quality benefits, but primarily provides bobwhite habitat."

In addition to research aimed at improving practices that increase wildlife habitat on CRP land, Burger and other members of the Forest and Wildlife Research Center and the department of wildlife and fisheries are involved in the Northern Bobwhite Conservation Initiative. The



Wes Burger

initiative is a national restoration plan for bobwhite that uses a habitat-oriented approach to restore populations.

"Over the last two years, we have worked with state and federal agencies in three different bird conservation regions to identify suitable habitat for quail and grassland birds," said Rick Hamrick, a research associate in the department of wildlife and fisheries. "Through the use of land cover data and bird survey data, we have developed geospatial models that predict habitat quality across broad expanses of landscape."

The MSU team has worked with agencies in the Southeast Coastal plain, the Mississippi Alluvial Valley, and the Central Hardwood Region of the Midwest. These three conservation regions are connected and cover approximately a third of the total bobwhite range.

The key to enhancing habitat for grassland birds, Burger said, is to start with areas that have the likelihood of already supporting bobwhite and then do two things to enhance it: expand those areas and connect them to form large continuous patches of habitat.

"Bobwhite quail are a passion for me and they are an important species for sporting, hunting and economically," Burger said. "I am fortunate to have the opportunity to work with the NRCS and state agencies on national initiatives that preserve this important species for future generations."

Leaner is better for state's furniture manufacturers

Lean production may help eliminate lean times for Mississippi's furniture manufacturers.

Lean production is an engineering term for the ability to produce more with less. Scientists in Mississippi State's Institute of Furniture Manufacturing and Management are helping implement lean systems in the state's furniture manufacturing plants.

Elimination of waste—especially in the areas of time and materials—is the key component of lean manufacturing. Conversion to a lean system begins with an analysis of the number of steps it takes to produce furniture components. Those steps are then consolidated to create a smoother flow through an assembly-line approach.

"Lean production uses cellular manufacturing for one-piece flow wherever possible in the system," said Steve Hunter, associate professor in the department of forest products. "Lean production uses less of everything when compared to the archaic functional manufacturing system—less labor effort, less manufacturing space, less investment in tools, and less design engineering hours to develop a new product."

Hunter and Duane Molsenbocker, interim director in MSU's Industrial Outreach, have implemented lean production in 24 of Mississippi's 200 furniture manufacturing plants. Furniture manufacturers provide 27,000 jobs and contribute \$4.1 billion to Mississippi's economy. The state produces about 70 percent of the nation's upholstered furniture.

Judy Dunaway, president of Airline Manufacturing Company, has adopted lean processes in her Columbus wood furniture component manufacturing facility, successfully reducing inventory, improving cash flow, decreasing costs, cutting lead times, and making the overall operation more flexible.

"We first selected one of our most frequently manufactured components and tracked every movement of that component," Dunaway said. "We discovered it took us five days to produce

1,000 parts and each part traveled more than 50 man-miles in the process."

On the first run with the new lean processes, the company produced 1,000 parts in three-and-a-half hours.

"That was our first success story and there have been many since," Dunaway said.

The implementation of lean production typically means keeping less than half the regularly needed inventory on hand. In addition, the implementation and adoption of lean production by a manufacturer results in better quality because of fewer defects.

Hassell Franklin, founder, president and chief executive officer of the Houston-based Franklin Corp. has implemented lean processes throughout his upholstered furniture manufacturing facility.

"The implementation of lean principles has given us a productivity gain of 35 percent," Franklin said. "With MSU's help, we are refining our mechanism assembly processes. We want to take out all the wasted motion and streamline the process."

MSU's Institute of Furniture Manufacturing and Management is an interdisciplinary unit that includes the College of Forest Resources, Forest and Wildlife Research Center, College of Business and Industry, Bagley College of Engineering, College of Architecture, Art and Design, and the MSU Extension Service. The institute is housed in the Franklin Center.

"The institute applies research that aids in the design, production, marketing, and distribution of high quality products that meet the changing needs of families and businesses here and abroad," Hunter said. "It has been estimated that furniture research at Mississippi State University is saving the state's manufacturers about \$3 million each year."

For more information, contact Steve Hunter at 662-325-8344 or by e-mail at shunter@cfr.msstate.edu.



MSU wildlife and fisheries assistant research professor Rich Minnis (second from right) shared some tips with (from left) Boyd Hicks of the Arkansas Game and Fish Commission, John Moran of Florida Fish and Wildlife, and Keith Byers of the Georgia Department of Natural Resources.

CSI: MSU

MSU hosted a wildlife crime scene investigation training session in conjunction with the U.S. Fish and Wildlife Service Forensics Laboratory in September.

The three-day course was open to officers with wildlife and fisheries management agencies in the Southeast. Capt. John Moran with the Florida Fish and Wildlife Conservation Commission's Division of Law Enforcement Investigation Unit was one of the participants in the course. Moran said such training is important because of wildlife officers' responsibilities for both law enforcement and investigation.

"We're trying to provide officers with as much investigation information as possible because in most states wildlife officers do not have full access to state crime labs," he said. "I hope what Mississippi State started with this course will continue and expand to include sessions that will provide training and resources to enable participants to go back to their states and train other officers."

Forest Resources ALUMNI HIGHLIGHTS

Bill Tomlinson named CFR Alumni Fellow

Willie H. "Bill" Tomlinson Jr. of Vicksburg recently was selected College of Forest Resources Alumni Fellow. Tomlinson received a bachelor's degree in forest management and a master's in wildlife ecology in 1972 and 1977, respectively. He is president of Wildlife Technical Services, a natural resource and environmental consulting firm.

Organized by the MSU Alumni Association for the past 15 years, the Alumni Fellows Program brings graduates of distinction back to campus to share their professional experiences and provide career guidance for current students and their faculty mentors. MSU Alumni Fellows carry the title for life.



Bill Tomlinson

Darden selected new regional director of USFS Cooperative Forestry

A 30-year wildlife and natural resource management veteran has been tapped to oversee the USDA Forest Service, Southern Region's, Cooperative Forestry Program, which assists private forest owners in 13 Southern states.

Tom Darden, who has headed the region's Biological and Physical Resources Unit for the last seven years, has been named director for cooperative forestry. The position is located in the region's Atlanta headquarters.

Darden is greatly anticipating his new assignment. "I am looking forward to using my experience from building partnerships and coalitions for national forest management to now address land conservation challenges facing Southern private landowners," said Darden. "Meshing management goals on both public and private lands is the best way to redeem our conservation mission in the South."

More than 5.5 million private landowners oversee 89 percent of the South's forested land base, he said. Working through the state foresters, the Cooperative Forestry Programs assist landowners in achieving their resource objectives on their forestland.

Darden earned a bachelor's degree in forestry and a master's degree in wildlife ecology at Mississippi State. He also was named Alumni Fellow for the College of Forest Resources in 2000.

Stewart named Georgia Forestry Commission director

Kenneth C. Stewart Jr., was named director of the Georgia Forestry Commission by Gov. Sonny Perdue.

The GFC provides leadership, service and education in protection, management and use of Georgia's forestry resources. As director, Stewart will be responsible for the state agency's \$40 million annual budget, its 675 employees and all programs conducted by the commission.

"The Forestry Commission has the critical job of protecting and managing one of Georgia's most precious natural resources," Perdue said. "Ken Stewart came highly recommended from the Georgia forestry community"

Stewart, 54, was most recently a vice president of retail and specialty business for Unisource Worldwide Inc. Prior to that, he held various positions with Georgia Pacific, and was a forester with Mississippi Power and Light. He is a registered forester and member of the Georgia Bar.

Stewart received his undergraduate degrees in forestry and general business from Mississippi State and a juris doctorate from Woodrow Wilson College of Law.

"Georgia's forests play a vital role in the state's economy as well as significantly contribute to improved air and water quality for our state," Stewart said. "I am pleased to be joining the fine people and tradition of the Georgia Forestry Commission."



A special reception honoring spring 2005 graduates and their families was held in May.

Natural Resources Youth Summer Camp

The College of Forest Resources hosted the first Natural Resources Summer Camp for high school students.

Designed to give high school students a "hands-on" learning experience about jobs in the broad field of natural resources, the camp was sponsored by the Mississippi Forestry Commission and



Mississippi State, and is supported by grants from Weyerhaeuser Co. and International Paper.

The four-day camp instructed students on the careers available in the natural resources fields and the kind of work these professionals do on a daily basis. Students also learned about environmental stewardship and management.

Student Ambassadors in the College of Forest Resources assist with student recruiting efforts at community colleges, high schools, and career fairs throughout the state. Ambassadors for the current school year are (l-r) Dan Prevost of Raymond, a senior forestry major; Whitney Johnston of Jackson, a senior wildlife and fisheries major; Alicia Wiseman of Shannon, a senior wildlife and fisheries major; and Mac Ables of Lexington, a senior forestry major. The Ambassadors program is in its third year and is funded by MSU alumnus Charles S. Dismukes, owner of Vaiden Lumber Co.



MSU student wildlife researcher receives top international honor

A pioneering genetic study of male deer reproductive success earned a first-place international honor for a recent doctoral graduate of Mississippi State.

Randall W. "Randy" DeYoung of Kingsville, Texas, a May graduate of the university's department of wildlife and fisheries, recently was honored for a research paper he presented at the Wildlife Society's 2004 meeting. His paper was among 27 reports by international students accepted for judging at the Calgary, Alberta, Canada gathering.

Founded in 1937, the society is a nonprofit scientific and educational association of more than 9,000 active members spread among some 60 countries.

DeYoung's research is groundbreaking, according to the MSU professor with whom he collaborated on the project. "Randy is the first to document reproductive success in wild populations of white-tailed deer," said Steve Demarais. "The results will greatly aid other researchers' understanding of management effectiveness of white-tailed deer populations throughout North America," the wildlife biologist added.

While the reproductive success of a balanced deer herd previously was attributed to a few dominant bucks, DeYoung's investigation indicates that a much larger number of bucks across all age classes are involved in fathering fawns.

"This research has significant implications for those concerned about the effects of 'trophy hunting,'" Demarais said. "The chances of harming population genetics are much less when there are many bucks involved in breeding."

For a copy of his paper, contact Demarais at 662-325-2618 or by e-mail at sdemarais@cfr.msstate.edu.

Alumni Updates

John O. Moore (Forestry '61) died in July. Moore is survived by his wife Peggy, daughters Karen Moore and Kristy Harris, son **Kent Moore (Forestry '86)** and four grandchildren. He was an active and beloved participant in Mississippi's forestry community and is sorely missed.

George Butler (Forestry '63) retired in 2001 after nearly 38 years with the Mississippi Forestry Commission. He follows all MSU sports, especially baseball, and enjoys babysitting his 9-month-old granddaughter Emma. He and wife Judy, who was a secretary in the then-School of Forest Resources, live in Tupelo.

Joe Woods (Forestry '63) is retired after 42 years with the U.S. Army Corps of Engineers. Woods and wife Mary Anne have three grown children and two grandchildren. Woods retired with distinction as an outstanding ambassador for the Corps of Engineers, setting high standards for others to follow. He received the highest award bestowed by the American Recreation Coalition, the Sheldon Coleman Great Outdoor Award for the Department of Defense. Woods also received the Bronze Order of the deFleury Medal for outstanding meritorious service to the U.S. Army Corps of Engineers, and numerous other Superior Civilian Service Awards. He has published two novels, has a third under contract with Publish American, and a fourth approximately 75 percent complete.

Robin Richerson (Forestry '71) is president of TLC Co., a timber land consulting firm. He retired from International Paper after 32 years. He and wife Cathy live in Fulton.

Vernon Eugene Cooper (Forestry '81) is working as the George County Forester for the Mississippi State Forestry Commission. He and wife Karen live in Lucedale.

Scott Griffin (Forestry '85) is the Southern regional manager of Forestry Systems, Inc. He and wife Charlotte have three children: 12-year-old twins Kirk and Claire, and 7-year-old son John. Griffin also is serving as a major in the Army National Guard. The Griffin family lives in Decatur.

Jeff Taylor (Forestry '93) is president of Taylor Forestry Inc., a forestry consulting firm with three graduate foresters serving landowners in Mississippi and Louisiana. He and wife Susan have two children: Reed, 9, and Jamie, 5. The Taylor's reside in Summit.

Daniel S. Coggin (Forestry '95, Wildlife and Fisheries '98) is a wildlife biologist/forester with the Mississippi Fish and Wildlife Foundation. Coggin also serves as director of Mississippi Land Trust and Mississippi River Trust. He and wife Mary Robin have two children: Mary Kate, 5, and Emma, 2. Coggin previously served as a stewardship biologist with Florida Fish and Wildlife Conservation Commission and as a district biologist with the Mississippi Department of Wildlife, Fisheries and Parks. The Coggin family lives in Amory.

Matthew Wayne Hyatt (Wildlife and Fisheries '96) is working for the Idaho Department of Fish and Game and living in Nampa, Idaho.

Butch Bailey (Forestry '00) is an extension associate for the Mississippi Extension Service. He and wife Toni live in Hattiesburg.

Matt Vrazel (Forest Products '00, '02) is working for Louisiana Pacific Corp. as a research engineer scientist. He and wife Caroline live in Spring Hill, Tenn.

Kevin Burnette (Forestry '02) is serving on active duty with the 155th Brigade Combat Team in Kalsu, Iraq. Kevin's family is anxiously awaiting his return in Sheridan, Ark.

Robert Maddox (Forestry '02) is a forester for the Alabama Forestry Commission. He lives in Evergreen, Ala.

Josh Skidmore (Forestry '02) and wife Sarah have a new addition. Jillian Ruth Skidmore was born on January 11, 2005.

Kathryn G. Arano (Forestry '03) is an assistant professor for West Virginia University. She and husband Rico M. Gazal live in Morgantown, W.V.

Riann K. Hickman (Forestry '03) is working for Weyerhaeuser as an inventory/GIS forester. Riann moved to Oregon in June 2004 and is responsible for the inventory on a 208,000 acre tree farm.

ALUMNI UPDATES



To be included in the update, complete and return this form to Karen Brasher, Box 9680, Mississippi State, MS 39762-9680 or e-mail kbrasher@cfr.msstate.edu.

We want your news!

As part of the College of Forest Resources newsletter, the alumni updates help keep us all connected. Let us know about you, your careers and family so we can let your friends and classmates keep up with you. Please use the form below to share career changes, recognitions or honors received, family updates, or other news. If you need more space, include a separate sheet of paper.

Name _____ Spouse _____

CFR Degree(s) and Year(s) Received _____

Address _____

City _____ State _____ ZIP _____

Home Phone (_____) _____ Business Phone (_____) _____

E-mail _____

Occupation _____

Name of Business _____

Children/Grandchildren _____

Update Information _____

Mississippi State University complies with all applicable laws regarding affirmative action and equal opportunity in all its activities and programs and does not discriminate against anyone protected by law because of age, color, disability, national origin, race, religion, sex, handicap, or status as a veteran or disabled veteran.

Forest Resources PUBLICATIONS VIA THE INTERNET

Wood protection: A guide to protecting your home

<http://www.cfr.msstate.edu/fwrc/woodpreservation.pdf>

This research advance is designed to give homeowners information on: (1) the organisms which commonly attack wood in the South and ways of solving minor fungal deterioration problems; (2) the proper materials to build a deck or other exposed structure; and (3) the safety of treated wood in pre-existing structures.

Grassland bird responses to agricultural field borders

<http://www.cfr.msstate.edu/fwrc/grassland.pdf>

In this study, scientists measured the effects of field borders on populations of breeding and wintering grassland birds and northern bobwhite in the black belt prairie of Northeastern Mississippi.

History and evaluation of the McIntire-Stennis Cooperative Forestry Research Program

<http://www.cfr.msstate.edu/fwrc/mcstennis.pdf>

This history provides a tribute to the dedication of earlier forestry leaders, and at the same time, demonstrates a possible path for renewal of their efforts to increase the level of forestry research.

Mississippi's forest inventory pilot program

<http://www.cfr.msstate.edu/fwrc/inventory.pdf>

The bulletin documents the Mississippi Forest Inventory Pilot Program development of a forest inventory and information distribution system based on remote sensing, GIS and GPS technologies in concert with widely accepted field data collection and computation techniques that can be extended to a statewide system.

Parallel pull flow: A new lean production design

<http://www.cfr.msstate.edu/fwrc/ppf.pdf>

This case study is No. 2 in a series of studies that relate specifically to the development and application of lean manufacturing techniques for the furniture and wood component supplying industries. Case study No. 2 is an example of how productivity can be increased in a furniture manufacturing organization by using a new lean production design termed Parallel Pull Flow.