Bald eagles are BACK

Wise forest management critical to their future
The School and University undertook an intensive strategic planning effort during the past year. This process focused on defining programs to significantly enhance education, research, and service activities responsive to priority needs during the coming decade.

The School’s committee, represented by faculty and staff across disciplines, identified three key strategies to chart our future course in light of emerging external challenges and opportunities. Input from the Alumni Association Steering Committee and External Advisory Council was very helpful in developing our plan.

I. New Opportunities in Education

New approaches to education can enhance our current programs while fostering growth at the graduate level. Both in industry and in the public sector, the master’s degree is fast becoming the standard for professional employment in forest resources. Because our graduate program offers the greatest opportunity to enhance the diversity of our programs and professions, we will concentrate future growth in graduate education while stabilizing undergraduate enrollment. Toward that end, our new 2+3 Program has just been approved by the Board of Regents. It will admit undergraduates at the end of their first professional year and allow them to work concurrently toward both a BSFR and an MFR.

The Internet and advent of distance learning offer tremendous opportunities, both to enhance the education of traditional students and to reach new audiences. New technologies will allow us to offer graduate credit and continuing education opportunities to working professionals at their locations. Our methods of delivering course work, research results and service programs may change dramatically over the coming decade as the technology develops -- but we will not sacrifice the quality of our curriculum or programs.

II. Partnerships that Enhance National and International Stature

Great institutions understand that they cannot “be all things to all people,” and that inter-disciplinary and inter-institutional partnerships often yield more effective and efficient solutions to complex problems. In this context, rather than attempt to build minimal qualifications in all areas, the Warnell School will partner with top tier programs of other institutions and organizations that complement our strengths and build the best possible teams in teaching, research and service programs.

III. New Funding Sources and Approaches

While the School receives funding from state and federal sources, it is likely that these sources of funding will remain stable or decline in the coming decade. That means we must find new sources to fund the increasing costs of conducting research and public education. Our future budgets must be met through improved funding levels of contracts, grants, private sources and endowments. In addition, it’s critical that we raise capital funds for building needs and a significantly enhanced endowment.

The Warnell School is a leader in forest resource management programs devoted to instruction, research and service. Our strategic plan builds upon the School’s current strengths to raise the national and international stature of the School. By focusing on these three key strategies, we can greatly expand the impact of our programs and benefits to society in the coming century.
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On the Cover
It took decades to restore the nation’s symbol to U.S. skies. Now the eagles’ future depends on responsible forest landowners to keep them flying high.

See story pg. 3
cover photo by
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Graphic Design
Lori Markiton

The Foresters’ Log is an Alumni Association Publication. It is published twice a year in the fall and spring.
• John Carroll, assistant professor of wildlife ecology and management and Bob Cooper, associate professor of wildlife management, received a $154,000 from the Wildlife Resources Division of the Georgia Department of Natural Resources to monitor and conduct research with the new Georgia Bobwhite Quail Initiative. Carroll received donations of $6,000 from Tall Timbers Research, Inc. and $2,000 from Monsanto, Inc. to support gamebird research in the Southeast. He also received $3,300 from UGA’s Office of International Education to develop a cooperative field course with Makerere University in Uganda. In September, Carroll traveled to Cleres, France to present an overview of research efforts on behalf of endangered quail, pheasants and other Galliformes, which are in decline worldwide. He also traveled to the Turkish Republic of North Cyprus to help guide development of a professional gamebird management program.

• Jon Caulfield and David Newman, professors of forest finance, along with Runsheng Yin, assistant research scientist, presented papers at a conference in Darmstadt, Germany honoring the 150th anniversary of the Faustmann Formula, the basis for land valuation and a fundamental equation in forest economics.

• Kim Coder, associate professor of forest ecology, was named Educator of the Year by the Georgia Urban Forest Council. He also received an Award of Excellence in Arboricultural Education from the International Society of Arboriculture.

• Mike Conroy, adjunct professor of wildlife ecology, Georgia Cooperative Fish and Wildlife Unit, received a $150,000 grant from the U.S. Geological Survey and the U.S. Fish and Wildlife Service to develop a harvest program for American black ducks. He received another $50,000 from USGS to develop a mark-recapture database system for bird-banding and $20,000 for a cooperative study with Clemson University to study the spatial scale in landscape-level adaptive management.

• Sarah Covert, associate professor of forest biotechnology, received $36,000 from the U.S. Forest Service to study gene transcription in the fusiform rust pathogen. The project is a cooperative agreement between WSFR’s Covert and Paula Spaine, a Forest Service scientist based in Athens.

• Dale Greene, Jeff Mayo and Kevin Boston received a $140,000 two-year grant from the Wood Supply Research Institute to examine the causes and costs of unused wood production potential in the Southeast and in Maine. This is a collaborative project with faculty at Louisiana State University and at the University of Maine.

• Ron Hendrick, associate professor of forest soils, was selected to serve as a panelist on the U.S. Department of Agriculture National Research Competitive Grants Program for Ecosystems Science. Fifteen scientists from across the country will review, rank and make funding recommendations for research projects, including those for terrestrial, aquatic, managed and natural ecosystems. This program has been an important national source of competitive funding for forestry research.

• Dan Markewitz, assistant professor of forest soils, hosted Mike Dombeck, chief of Brazil’s U.S. Forest Service for a day of discussion and tours of WSFR research sites in Brazil.

• Scott Merkle, professor of forest biotechnology, was selected to participate in a program about genetic technology sponsored by Leadership Athens. He presented his research on propagating hardwoods and pines through somatic embryogenesis and explained how the cultures can be used to generate trees for use in heavy metal remediation. He also served as an expert panelist in discussions about different aspects of biotechnology.

• Joe Meyers, adjunct assistant professor of wildlife and unit leader, USGA Patuxent Wildlife Center, was elected treasurer of the Neotropical Ornithological Society through 2003. The Society publishes the international journal, Ornitológica Neotropical. Meyers was also elected member-at-large through 2001 to the executive board of the The Wildlife Society’s Georgia Chapter, where he served as newsletter editor in 1999.

• Karl Miller, associate professor of wildlife management and James Miller, a U.S. Forest Service scientist at Auburn University authored the new book, “Forest Plants of the Southeast and Their Wildlife Uses,” published by the Weed Science Society. In February (Karl) Miller delivered the keynote address at the Southeast Deer Study Group meeting about the interactions of intensive forest management on wildlife.

continued on pg. 6...
Bald eagles make a comeback

by Helen Fosgate

In 1995, a pair of bald eagles took up residence in a South Georgia pine forest managed by the University of Georgia’s Warnell School of Forest Resources. School officials contacted the Georgia Department of Natural Resources and were soon poring over a copy of the U.S. Fish and Wildlife Service’s Bald Eagle Management Guidelines.

Administrators promptly delayed a timber harvest going on in the outer boundary of a 1-mile radius of the nest site, then developed a management plan that protects the eagles while allowing teaching and research activities to continue. The forest, near Cordele, was a gift to the University of Georgia Foundation for the benefit of the Warnell School, which manages the forest within the long-term plans approved by the Foundation trustees. Faculty and graduate students routinely monitor the nest, which remains active.

The nesting pair is the culmination of a three decade effort by wildlife officials, conservationists, universities and individuals to bring the bald eagle back. Forty-nine pairs nested in Georgia last year, up from 37 in 1998. Their numbers have climbed slowly but steadily since restoration efforts began here in 1979. In July 1999, President Clinton announced that the birds have rebounded so well they may soon be removed from the Endangered Species List.

Their successful reintroduction was due in large part to hacking, a method adapted from falconry of gradually releasing raptors into the wild. Nestlings feed, rest and grow for about four weeks inside a semi-open enclosure that mimics a nest, placed high above a lake or river.

Joe Meyers, leader of the U.S. Geological Survey’s Patuxent Wildlife Research Center in Athens and an adjunct faculty member in UGA’s Warnell School of Forest Resources, was among the first to look at the effects of hacking on bald eagles in the southeast. He and colleagues at Alabama’s Department of Conservation and Natural Resources studied the behavior of captive-reared versus wild-reared bald eagle nestlings. He presented his research at the American Ornithologist Union meeting at Cornell University in August.

“There was some concern at the beginning that captive-reared nestlings might be dysfunctional and less able to fend for themselves in the wild,” he said. Instead, Meyers and colleagues found that captive-raised birds adjusted quickly to their new freedom. Once fledged, they noted that wild-reared birds left quickly while captive-reared birds hung around the hacking towers.

“This may actually have contributed to... continued on pg. 6...

(Above) Hacking cages provide protection from predators as nestlings grow into fledglings.

(Left) It takes four to five years for bald eagles to reach breeding age and to grow the white head feathers of an adult.
University of Georgia forestry researchers may have discovered why some pines grow straight and tall while others are twisted and bent. A new study, funded by the Georgia Forestry Commission and the USDA Forest Service, shows the culprit could be a bent or ‘J-shaped’ taproot. Researchers found trees with bent taproots are more than twice as likely to exhibit above-ground deformities like wavy trunks and branches.

“Seedlings are often planted with the taproot bent into an ‘L’ or ‘J-shape,’ said Tim Harrington, a forestry researcher in UGA’s Warnell School of Forest Resources. “Once planted, the root tends to grow in this same configuration for at least 10 years.”

Stem “sinuosity” is serious business since crooked trunks drastically reduce the value of pine trees. The condition relegates trees to the pulpwood rather than the higher-priced saw timber market. This study, the first in North America to show such a relationship, is scheduled for publication in the November 1999 issue of the the Southern Journal of Applied Forestry. The Georgia Forestry Commission prepared a report for landowners on the work in August 1999.

Previous research addressing the survival and growth of seedlings planted with bent taproots were generally inconclusive. But long-time Georgia Forestry Commission entomologist Terry Price pushed for further proof. His observations in pine plantations across the state made him suspect a relationship, and he contacted Harrington at UGA. Research coordinator Jason Gatch and Forest Service scientist Boyd Edwards, worked on the research with Harrington at 48 sites across Georgia’s Piedmont and Coastal Plain regions.

“For years, we believed this was a genetic problem,” said Price. “But I had formed an opinion that it was an environmental condition caused by a bent taproot that had either hit a soil hardpan or had been J-rooted at planting.”

In the study, researchers paired loblolly pines, one with a straight stem to one with a crooked or wavy stem in plantations that included trees three-to-10-years old. They dug down as much as two feet to excavate the taproot. Seventy-seven percent of the trees with bent taproots had medium to high levels of stem sinuosity, while 71 percent of trees with straight taproots exhibited low levels of stem sinuosity. Trees with bent taproots were also 7 percent shorter in height and 9 percent smaller in diameter than their straight-trunked neighbors.

And it’s not just trunks that exhibit sinuosity. Harrington said the phenomenon also affects pine branches and upper stems, a fact that led researchers to question the biological mechanism behind the deformities as well as the cause.

“Because sinuosity is expressed throughout the tree, we believe the mechanism may be hormonal,” he said. “We know from other studies that bending the stem causes an increase in ethylene production in the tree, and that in turn stimulates production of denser compression wood. The same response could stimulate the development of stem sinuosity.”

The first study looked at sinuosity in loblolly pines. Now researchers are analyzing a new set of data collected on slash pines. Price and Harrington suspect that wavy trees are also more susceptible to attack from tip moths and pine bark beetles. To test this theory, they have planted trees with and without bent taproots at six sites across the state and are currently monitoring insect damage.
New Faces

Teresa Harrison (right) is the School’s new program coordinator for student recruitment and placement. Jean Abbey (left) is undergraduate advisor.

1999 Staff Award Recipients

Dan Williams (left), parks manager; Doris Lord, administrative secretary; and Frank Mahone (far right), equipment operator at the B.F. Grant Forest in Eatonton, accept congratulations from Dean Arnett C. Mace, Jr. after being named recipients of the 1999 Staff Awards. The $1,000 awards, provided annually by the Alumni Association, recognize outstanding support personnel in the Warnell School of Forest Resources.

Gone fishin’

Twenty-two young people from the Boys and Girls Clubs of Athens and 15 senior citizens from the Council on Aging turned out to try their luck in Boar Pond at the Charlie Elliott Wildlife Center on October 16. Sponsored by The United Way of Northeast Georgia, the UGA Fisheries Society and the Oconee Chapter of Trout Unlimited, the annual event pairs young and old for a day of fun and fish. Volunteers baited hooks and shared their fishing know-how. Publix Supermarket in Watkinsville donated food and drink for a cookout by the pond. The Williams Company donated raffle prizes for participants.
...Bald eagles continued from pg. 3

their survival, since they continued to receive fresh meat as they grew stronger and learned to fly and hunt,” he said.

To prevent them from learning to rely on humans, nestlings inside the hacking boxes never see the people behind the gloved hands that provide food and water. After release, fledglings return to the hacking towers for eight to 10 weeks, where food is left on top of the boxes. In the wild, parents feed fledglings for up to 100 days.

Hacking was tried successfully in New York in 1978 and has since been used extensively in other states to restore bald and golden eagles, peregrine falcons and other raptors to their native ranges.

“Hacking programs did a lot to quickly increase bald eagle distribution,” said Jody Millar, bald eagle coordinator for the U.S. Fish and Wildlife Service in Rock Island, Ill. “It was used extensively in areas where there weren’t any eagles at all or where their numbers were very low.”

Decimated in the 1950s and ‘60s by the effects of organochlorine pesticides like DDT, bald eagles had all but disappeared from Georgia and indeed much of the nation, by the late 1960s. Many eagles were shot. Alaska paid a bounty for bald eagles from 1917 to 1953, when an estimated 150,000 were killed.

DDT was banned for use in the U.S. in 1972. That, along with the protections provided by the Endangered Species Act of 1973 started the bald eagle on a long, slow road to recovery. U.S. Fish and Wildlife biologists estimate the current population in the lower 48 at about 5,700 pairs, paltry compared to the estimated half million bald eagles here when Europeans first arrived.

“We’ve used hacking programs public education, nest protection, land management and law enforcement to restore them,” said Jim Ozier, a wildlife biologist with Georgia’s Department of Natural Resources. “Now our emphasis is working with landowners to protect and manage their habitat.”

Bald eagles are primarily fish-eaters and choose tall pines or cypress trees for nesting, usually along a major waterway. Ozier said most landowners are thrilled to discover bald eagles nesting on their property. But their presence may also delay planned activities such as pesticide spraying or timber harvesting near the nest during the breeding and nesting season, which is from October to April in Georgia.

Ozier told the story of another pair of bald eagles nesting in Reynolds Plantation on Lake Oconee in Greene County. The eagles chose a tall pine in a tract slated for development. In deference to the eagles -- and community members smitten with their new residents -- developers have postponed development in the immediate area.

The birds’ future now hinges on the cooperation of landowners across Georgia and the nation, experts say.

“I certainly don’t think our work is done,” said Millar. “Due to human pressure, our wildlife is in constant need of vigilance and protection.”

... faculty news continued from pg. 2

- David Newman, professor of forest finance, was named chair of the Georgia Forestry Association’s Fiscal Policy Committee. He continues to serve as an associate editor of the Journal of Forest Economics.

- Sara Schweitzer, assistant professor of wildlife management, received a $27,600 grant from the Georgia Department of Natural Resources Nongame Natural Heritage Section to study the effects of human disturbances on the type of nesting habitat and reproductive success of American Oystercatchers.

- Klaus Steinbeck, professor of silviculture, was elected a Fellow in the Society of American Foresters. (see profile, page 7)

- Bob Teskey, professor of forest ecology, was selected to coordinate the nine physiology working groups of the International Union of Forestry Research Organizations (IUFRO).

- Bob Warren, professor of wildlife ecology and management, received The Josiah Meigs Award for Excellence in Teaching. (see page 12)
Klaus Steinbeck walks ahead, his boots crunching in the deep leaf fall. He pauses beneath a large white oak to wait for a couple of stragglers who have stopped to inspect a deer rub along the trail.

“Now,” he says, turning to face the small semi-circle of students gathered around him. “You’re managing for wildlife. How could you improve this stand for deer, turkey and other wildlife?”

The students, mostly male, look up into the high canopy of hardwoods. Finally one says, “Looks pretty good to me. I’d just leave it alone.” Steinbeck nods. “Doing nothing is always an option,” he says. “Anyone else?”

Another student, who walked up too late to hear the original question blurts out, “I b’lieve I’d take out these biggest oaks and make room for the smaller understory trees.”

The students look at each other, then at Steinbeck, who looks down, the hint of a smile in his face. “Your slip is showing, Mike,” he says finally. Everyone laughs, including Mike, and Steinbeck reminds him that the older, larger trees are producing the mast, or nuts, a major food source for wildlife.

For Steinbeck, a teacher and researcher in UGA’s Warnell School of Forest Resources for 32 years -- teaching -- especially outdoors, is among his greatest pleasures. His specialty is silviculture, the care and cultivation of forest trees, but Steinbeck’s definition includes “cultivating the forester” as well.

Steinbeck, who retires in March, was born in Munich, Germany. After World War II, his homeland in turmoil, 15-year-old Steinbeck was sent to live with his aunt in Atlanta. He later moved to Augusta, where he lived with family friends until his graduation from Richmond Academy. Steinbeck was “born wanting to be a forester,” and after attending a kind of junior college in Germany, he returned to Georgia in 1958 to enroll in UGA’s School of Forestry.

“Most people say they want to be a forester because they like to hunt and fish,” he says. “That wasn’t true for me. I just wanted to be out in the woods.”

He earned both a bachelor’s and a master’s degree in forestry at UGA, then completed his doctoral degree in tree physiology at Michigan State University. After a short stint with the U.S. Forest Service’s Southern Research Station, he joined the forestry faculty at UGA in 1968.

Much has changed in the 40-plus years since Steinbeck began studying forestry. With the advent of the pulp and paper industry, it became “much more of an agricultural system than it once was,” he says. “Yet the demand for forest resources is growing so much, we don’t really have a choice but to grow more intensively on some land.”

More recently, he says the emphasis on ecosystem management has also brought changes, “though foresters have watched over large, unique assemblages of trees and plants for many years.”

An independent thinker, Steinbeck blazed a lone trail in his research. While others were studying ways to push pine yields, Steinbeck focused on hardwoods like black locust, sweetgum and sycamore that sprout and regenerate naturally from stumps. He conducted species screening and spacing studies as well as experiments to determine the

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A new Wood Quality Consortium, whose primary purpose is to gain a better understanding of the properties of the wood coming from fast-tracked southern pine plantations, has been approved by UGA officials and endorsed by industry supporters. It begins with eight corporate members and five institutional partners.

Dick Daniels, professor of quantitative forest management in UGA’s Warnell School of Forest Resources is the Consortium’s first director. Alex Clark, from USDA’s Forest Services Lab in Athens will serve as coordinator.

“More and more, we rely on wood from fast-growing plantations,” said Daniels. “The shorter rotation lengths raise questions about the appropriate uses for this new wood supply for traditional products.”

Researchers want to determine how the change to intensive production effects not only wood quality, but the product mix and profitability of manufactured wood and fiber products.

“Understanding the anatomical characteristics, strength properties and productive capabilities is critical for optimizing management decisions and merchandising trees into multiple products,” said Daniels. ▲

... Steinbeck continued from pg. 7

effects of various cultural practices and rotation lengths on fiber yields.

In all, he published more than 50 articles on short-rotation hardwood forestry. Today his work is gaining new relevancy and respect as the major forest companies look to hardwoods for new sources of high-quality fiber.

“We used to kid him, call him the sweetgum man,” remembers Glenn Ware, professor of forest biometrics. “He was researching alternatives for pulp and fiber years -- no decades -- ahead of others. And really, it makes a lot of sense. Sweetgums are here, they’re native and very fast-growing.”

A student’s professor, Steinbeck stresses the value of practical knowledge and hands-on educational experiences. He takes his silviculture students to visit not only industrial forests during each semester but national and privately owned forests as well. He sometimes organizes weekend field trips for students who want to go along. He also encourages students to participate in outside activities, including those of the Forestry Club, where he has served as advisor for most of his years at UGA.

“Klaus truly enjoys his time with students,” says Karen Kuers, a former doctoral student who is now an assistant professor of forestry at the University of the South (Sewanee). “And he’s so genuine. With my own family hundreds of miles away, he opened his home to me

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Award winning

The Foresters’ Log received a Special Merit Award from the Council for the Advancement and Support of Education (CASE) in the external newsletter category. It competed against 2-and 4-color magazine entries from 19 colleges and universities in CASE District III’s 1999 Advancement Awards Program. Awards are based on overall content, quality of writing, editing, design, photography, printing, and how well the publication serves its target audience and meets its objectives. ▲
EPA’s Proposed Regulations Present Major Challenge to Forestry

BY ROB OLSZEWSKI
(Continuous Education, 1980)

The Environmental Protection Agency (EPA) proposed two new sets of regulations during the summer of 1999 that impact both point and nonpoint sources of pollution. The first addresses Total Maximum Daily Loads (TMDLs), which describe an approach of dealing with various sources of pollution or “loads” along impaired watercourses. The other proposal suggests changes to the National Pollutant Discharge Elimination Systems (NPDES) Program. Authority for this program is generally delegated from the EPA to state water quality agencies and covers the regulation of point sources of pollution.

The latter proposal potentially opens the door for the EPA to reverse nearly 30 years of history under the Clean Water Act by designating forestry activities as “point” rather than “nonpoint” sources of pollution. The other proposal suggests changes to the National Pollutant Discharge Elimination Systems (NPDES) Program. Authority for this program is generally delegated from the EPA to state water quality agencies and covers the regulation of point sources of pollution.

The latter proposal potentially opens the door for the EPA to reverse nearly 30 years of history under the Clean Water Act by designating forestry activities as “point” rather than “nonpoint” sources of pollution. The other proposal suggests changes to the National Pollutant Discharge Elimination Systems (NPDES) Program. Authority for this program is generally delegated from the EPA to state water quality agencies and covers the regulation of point sources of pollution.

The proposal would give the EPA and states the authority to designate, on a case-by-case basis, silvicultural activities as point sources requiring NPDES permits, much like those used for municipal sewage treatment plants or manufacturing facilities. The EPA maintains they would use this designation strictly in impaired watersheds, and only then when they step in on behalf of the state to assume direct responsibility for developing the TMDLs. Under this scenario, the EPA could designate a set of forestry activities from the previous list – or all of them – as point sources if they felt the designation was needed to control the problem.

Certainly forest landowners are not against clean water, and I don’t believe most are against the concept of TMDLs. A program designed to improve waters that fail to meet water quality standards is a step in the right direction. However, the concern in this instance is the approach EPA has outlined.

There is first a serious legal question about whether the EPA even has the authority to make this designation. Outside this complex debate, forestry has taken on the challenge of dealing with nonpoint sources through state-based approaches. The recent redesign of Georgia’s Forestry Best Management Practices (BMPs) provides a great example. State forestry agencies are intensifying their efforts to monitor and improve BMP compliance. The American Fiber and Paper Association’s (AF&PA) Sustainable Forestry Initiative Program emphasizes Best Management Practices for members, loggers and landowners. We already have the framework through these and other programs to deal with specific impaired watersheds, if needed.

In truth, forestry operations are one of the lower overall contributors to our nation’s nonpoint source pollution problems. In spite of this however, the EPA would like to use a federal enforcement mechanism to oversee the state’s forestry nonpoint source programs in impaired waters. Although the mechanisms vary in each instance, states already have enforcement authorities to deal with “bad actors” under state regulatory programs. And in a number of instances, states have used their authority to take punitive action.

While the EPA maintains that they intend to use their authority in very limited circumstances, agency personnel and leadership do change over time. The evidence the agency has presented so far with regard to this commitment is unsettling. In California, widely regarded as having the toughest forest practice acts in the country, the EPA has stepped in on behalf of the state to develop TMDLs on 11 forested watersheds. Lastly, there are some groups that could be expected to push for a broader application of the NPDES approach to forestry operations once set by this precedent. At best, it would be difficult to keep this proposed approach limited to the “rifle shot” the EPA describes.

Why should we change nearly 30 years of Clean Water Act history in dealing with forestry nonpoint sources of pollution? I strongly believe that forestry, based on its track record, deserves the opportunity to participate in the TMDL process under the state-based approach we have cooperatively supported over the years.

The EPA will issue final rules regarding their proposals in the summer of 2000. Stay tuned.
Many of the wild relatives of domestic chickens, turkeys, quail and guinea fowl are on the brink of extinction, but few are receiving much attention or conservation funding worldwide, according to scientists. Researchers met last fall at the World Pheasant Association in Parc de Cleres, France to discuss the sharp decline of the Galliformes, a diverse group of birds that includes many of the world’s most familiar food and game birds.

“Many of these species now exist in just one or two locations in the world,” said John Carroll, a University of Georgia wildlife researcher who chairs the International Partridge, Quail and Francolin Specialist Group, a part of the World Conservation Union. “Most Americans recognize the Bobwhite Quail, and maybe the Ring-Necked Pheasant, which isn’t even native to North America. But the group includes more than 140 amazing species.”

Most Galliformes are native to the tropics and were once plentiful in Southeast Asia, Africa and Latin America. Carroll, who is a wildlife biologist in UGA’s Warnell School of Forest Resources, said the causes of their decline are many and vary from country to country but include deforestation, urban and suburban development, uncontrolled hunting and intensive agriculture.

Galliformes are particularly hard hit by intensive farming practices that remove hedgerows and field borders and rely heavily on pesticides and herbicides. Carroll and colleagues are working to restore some populations even as they report that others are slipping away.
“We’ve been collecting data and the opinions of scientists in those countries to categorize the status of different species,” he said. “In some ways, we’re optimistic because as we highlight their plight, people become concerned, and we’ve gotten some research funded.”

Among the most threatened are the Himalayan Quail, the Oscillated Turkey and Edward’s Pheasant, which was thought to already be extinct before a few were spotted in 1996. Carroll said all are considered “critically endangered,” due to their small numbers and limited distribution.

Scientists say another concern is the loss of “wild” genes. The red jungle fowl, the ancestor of the common yard chicken is widely distributed in Asia, but new evidence suggests that the wild stock is being hybridized by domestic chickens. Scientists worry because wild genes often hold the key to disease resistance among domestic flocks.

Scientists formed the Partridge, Quail and Francolin Specialist Group in 1991 to address the problems. Since then they have conducted population and distribution surveys and developed conservation action plans. Practical solutions are urgent. Several of the Galliforme species are already extinct. Others hang on in small pockets of habitat and face an uncertain future.

For example, the Orange-Necked Hill Partridge was first described in 1927 but wasn’t seen again by scientists until 1991. Carroll said recent surveys show they aren’t all gone, but there may be only 200 individuals left in their native Vietnam. These survive in a small park.

“And this isn’t an unusual example among the Galliformes,” said Carroll. “We’re trying desperately to keep them from slipping through the conservation cracks.”

Eulalie Ann Ogden, Research Coordinator II (BSFR, Michigan State University, 1978 MFR in forest hydrology, UGA, 1981)

Goes by: Lee
Originally from: Long Island, NY
Years at UGA: 19
Years at WSFR: 10

Job description: I attempt to keep the research projects of two faculty members running smoothly -- from proposal writing to data collection and analysis through to the final report. I help design experiments, estimate project costs, supervise laborers, participate in data collection and analysis and generate final reports and presentations.

Family: 5-year old feist, Madison.

Best things about WSFR: I am fortunate to work with bright, interesting people who are finding solutions to real-world problems.

Favorite movie: It’s a toss up between The Wizard of Oz and The Hunt for Red October. I’ll be darned if I can explain why, though!

Interest outside work: I have been involved in volleyball, both as a player and a referee for more than 30 years. I also like to sing and dance. I sing with Athens Choral Society, where there’s safety in numbers! I also perform with Athens Creative Theater, which is a bigger challenge, since I’m often one of only 4 or 5 altos. I like to think that trying to keep up with all those talented kids keeps me young. I also enjoy traveling, ballroom and swing dancing and working in my yard.

Advice for living: I think I’d have to echo the advice of my 99-year old grandmother: Everything in moderation!

If you could meet one person no longer living, it would be: Eleanor Roosevelt. She was more than just an exemplary First Lady, but a prominent woman in modern American history in her own right.

If I won the lottery: I’d like to think I’d spend, invest and/or donate most of my winnings wisely, but I’d also set aside a portion for “fun.”

Would most like to be remembered: When I got lemons, I made lemonade!
Warren Awarded UGA’s Top Honor for Teaching

Bob Warren, professor of wildlife ecology and management, has received the Josiah Meigs Award, the University’s highest honor for superior teaching at the undergraduate and graduate levels. He is the first recipient from the School of Forest Resources and one of only four faculty selected from across campus in 2000.

The Meigs Award, established in 1982, honors the memory of scientist Josiah Meigs, the University’s second president. The award includes a discretionary fund of $1,000 for one year and a permanent salary increase of $6,000.

Warren has been a teacher and researcher in Warnell’s School of Forest Resources since 1983. In that time he has served as major professor to 29 M.S., 5 M.F.R. and 5 Ph.D. students and been on more than 75 graduate student committees in forest resources, landscape architecture, zoology, wildlife management, veterinary medicine and ecology. “This award is so well deserved,” said Warnell School Dean Arnett C. Mace, Jr. “Bob brings so many attributes to programs of the School and University, and this award recognizes the commitment, dedication and excellence in teaching he has demonstrated for many years.”

10 new half-time Graduate Assistantships
in Sustainable Forest Productivity

The Warnell School of Forest Resources seeks qualified applicants for 10 new half-time graduate assistantships in

- Intensive timber production
- Environmental values and use, including water and wildlife
- Forest assessment and monitoring
- Forest policy, social values and trade-offs

M.S. - $16,700/yr.
Ph.D. - $17,800/yr.

*Tuition and fees are $335/semester [based on Fall 1999].

For application materials contact:
Graduate Coordinator, Warnell School of Forest Resources, The University of Georgia, Athens, GA 30602-2152 or reach us by email at: gradinfo@smokey.forestry.uga.edu
Two Warnell Students Named to Who’s Who

Kevin Peyton, *(left)* a senior majoring in wildlife management and Dan Calhoun, *(right)* a master’s degree candidate in water resources, have been named to *Who’s Who Among Students in American Universities and Colleges*. The Who’s Who designation recognizes outstanding academic and extracurricular accomplishment as well as leadership.

Peyton, who plans to pursue a graduate degree in wildlife ecology at UGA next year, is the son of Randall and Marcia Peyton of Clarkesville, Ga.

Calhoun, whose graduate work has been to develop a new instrument that can monitor suspended sediments in water for use in environmental and municipal wastewater treatment applications, is the son of Manella and DuPre Calhoun of Anderson, S.C.

... Steinbeck continued from pg. 8

and treated me as family, something I’ll never forget.”

In his years at UGA, Steinbeck’s students have elected him Professor of the Year, Outstanding Faculty Member and Outstanding Advisor four times, and he received Superior Teaching Awards at Honors Day in 1980 and again in 1999. He was honored by his peers last November when he was elected a Fellow by the Society of American Foresters.

The shadows are growing long in the forest, and Steinbeck announces that this is the last stop. The students pile out of the van and follow him up the road to a research site where young loblolly pines stand in long, straight rows, like soldiers lined up for inspection.

“What you’re seeing here is the future,” says Steinbeck, motioning toward the regiment of pines behind him. “We can certainly grow a lot of fiber this way. And understand that on some land we have to grow intensively. But I wonder, too, if we ought to learn something from agriculture. They now use minimum tillage to prevent soil erosion. I hope that on our own learning curve, we can apply some of what they’ve learned and be gentle on the land.”
The Internet may have given it new life but distance learning is hardly new, according to Wendy Bedwell, distance education coordinator in the Warnell School. Only the tools have changed.

“Distance education has been going on in this country since the advent of correspondence courses in the 1800s,” she says. “It simply means that the instructor and student are separated, either by time, space or both.”

Bedwell works with faculty to adapt their course materials into a distance learning format, whether it’s to be delivered via the internet, CD Rom, video, email or through teleconferencing.

“The real trick,” she says, “is to create interaction, so students can also learn from one another. It all goes back to instructional design.”

Before coming to the Warnell School last September, Bedwell designed training courses for employees at Bechtel Power Corporation, an international engineering construction firm. That experience showed her technology’s potential to break down the barriers of time, distance and expense in allowing people access to education.

“It’s also a tremendous advantage to people who aren’t able or willing to drop everything to pursue an advanced degree,” she says. “Distance education students are highly motivated, self-directed people who are responsible for their own learning.”

Bedwell is working now with faculty in the Center for Forest Business to develop a distance education master of forest resources degree that would be available to working professional foresters.

“Many forest businesses have indicated a willingness to provide tuition reimbursements for their employees who complete advanced degrees,” says Bedwell.

But it’s not just prospective students who benefit from long distance courses. Community colleges have taken an interest in distance education, which helps them tap into not just local but world populations, expanding their educational and financial base as well.

“Distance education courses hold down costs, since you don’t need the big classrooms, buildings, parking lots and other facilities inherent to a campus,” said Bedwell. “And while it won’t ever replace the campus experience, distance education is certainly an appropriate tool to help us extend our knowledge and resources to the citizens of the state, nation and perhaps even the world.”

Forestry Area Speciality Advanced Training (FASAT) for county extension agents will continue in 2000, with 34 new agents and another 33 who attended in 1999 and want to return for further training. The listing includes 15 agents from major metropolitan and fast-growing areas of the state and 52 agents from heavily forested production areas of the state. FASAT agents are located in 55 multi-county clusters in Georgia.

Agents attending first-time training receive three and a half days of classes and field demonstrations while returning agents have a two and a half day curriculum. The training is made available through the School’s Center for Forest Business.
Endowed Scholarships Support 2+3 Program

Two new endowed scholarships have been established to support third-year students entering the Warnell School’s recently approved 2+3 Program. The 2+3 Program, open to students majoring in forestry and forest environmental resources, admits undergraduates at the end of their first professional year who then work concurrently toward both a Bachelor of Forest Resources degree (BSFR) and a Masters of Forest Resources (MFR). The scholarships include:

- **Gerald B. and Charlotte Alexander Saunders Scholarship**, established by Richard V. Saunders, Sr. in honor of Charlotte Alexander Saunders and the late Gerald B. Saunders. Based on financial need and a demonstrated desire to pursue graduate level achievement in forest resources. May be awarded in addition to graduate assistantships.

- **Arnett C. And Ruth Mace Memorial Scholarship**, established by Barbara and Arnett C. Mace, Jr., will support a student with an interest in sustainable forest production. May be awarded in addition to a graduate assistantship.

Honorary Alumnus

Chuck and Rose Lane Leavell have been named National Tree Farmers of the Year by the American Forest Foundation. They own and operate Charlane Plantation in Dry Branch, Georgia.

The Leavell’s sponsor an annual student scholarship supporting a wildlife major in the School.
When she entered UGA’s School of Forestry in 1974, Sharon Dolliver was one of only four women in her class. In 1976, she became the first woman forester in the Georgia Forestry Commission.

But Dolliver has never thought of herself as a trailblazer. She simply followed her interests.

“I’ve always loved the sciences,” she says. “I clearly remember my high school counselor charting out career opportunities. At that time I wanted to be a marine biologist, like Jaques Cousteau. Somewhere between that and the trips my parents took us on to the national parks out West, I decided I wanted to be involved in natural resource management.”

Dolliver grew up in Columbus, Ga., and once she graduated from Carver High School, she headed for the University of Georgia. After graduation, she began her career as an urban forester in Rockdale and Dekalb Counties where she worked for 4 and a half years before being promoted to Urban Forestry Coordinator. She worked with consulting urban foresters, non-profit tree organizations and community groups to establish programs that would improve Georgia’s urban and community forests. These efforts included planting thousands of trees in preparation for the 1996 Olympic Games, hosting the National Urban Forest Conference in Atlanta in 1997 and establishing the Georgia Urban Forest Council, a nonprofit organization dedicated to improving the state’s urban forests.

“City foresters certainly have to be diplomats,” she says, laughing. “The politics and people management comes with the job. Communication skills are absolutely essential.”

In 1997, Dolliver was named chief of Forest Information and Urban and Community Forestry. She oversees the Commission’s communications and education programs.

This includes three conservation education forests located in Dawsonville, Augusta and Milledgeville as well as Georgia’s Project Learning Tree program and Forestry Youth Camps. She also continues to work with the state’s urban and community foresters in planning forests for a host of objectives, including improved air and water quality, energy conservation, stormwater management and increased property values and revenue.

Dolliver says her department’s biggest challenges in the new millennium will be finding the resources to address the needs and demands of different groups and figuring out how to reach new audiences. She and her staff recently developed several public service announcements to help people understand the differences between clearing land for development versus harvesting and replanting forests to provide economic and environmental benefits.

“The Project Learning Tree program helps us reach young people,” she said. “The non-biased nature of the PLT program is what makes teachers so receptive to it. That, and the fact that the educational materials supplement and complement their curriculums.”

More than 1,000 Georgia teachers completed the Project Learning Tree workshops last year, a point of pride for Dolliver and the many foresters across the state who help teach the classes and contribute to the program’s success.

“There is no doubt in my mind that education is the key to improving the future,” says Dolliver.

(Contact Sharon Dolliver c/o The Georgia Forestry Commission, P.O. Box 819, Macon, GA 31202-0819 or by email:dolliver@gfc.state.ga.us).
Fred Haeussler, a long-time forester and conservationist at Union Camp until his retirement in 1995, received the 1999 Distinguished Alumni Award from the University of Georgia’s Warnell School of Forest Resources Alumni Association. The award, the School’s highest honor, recognizes outstanding service to the School, the University of Georgia, and the forest resources profession.

Haeussler graduated from UGA with a degree in forestry in 1954. He held many positions in his career at Union Camp, rising from staff forester to forest supervisor, land department manager and land agent.

“His leadership contributed to Union Camp’s position as one of the most progressive forest products companies in the world,” said Warnell School Dean Arnett C. Mace, Jr. “We value and trust Fred’s judgement and appreciate his ardent support of the School and the University of Georgia.”

After earning a master’s degree in forestry from Duke University in 1954, Haeussler served in the U.S. Air Force for two years before joining Union Camp. He is a Fellow in the Society of American Foresters, where he has served as president, vice-president, council member, and been a member of both the National Nominating Committee and the Forest Health and Productivity Task Force. Haeussler’s many contributions were recognized when the Society presented him with its prestigious John Beale Memorial Award for outstanding service to the profession.

Haeussler and his wife, Carol, live in Savannah, Ga. and have three sons and two grandchildren.

Haeussler named 1999 Distinguished Alumnus

IN MEMORIAM

Dr. Clarence John DeMars Jr. (BSF 1953)
Moss Lockman (BSF 1940) passed away on May 4, 1999. He spent his career as a consultant in timber management and specialized in producing cypress and pine lumber. He is survived by his wife, son and a daughter.
Frederick N. Mack (BSF 1942) died on June 2, 1998. After serving in the Army, he was employed with the South Carolina State Commission of Forestry. He later became a consulting forester.
Verrille Grey “Ace” Thigpen (BSF 1950) passed away in December 1999. He had a distinguished career with Union Camp.
Albert Kenneth Thurmond (BSF 1929) died in August 1998.

Leave a Legacy:

Remember the University of Georgia Foundation to benefit the Warnell School of Forest Resources in your estate plans.
1950s

J. Lamar Teate (BSF 1954, MF 1956, PhD 1967, NC State) 403 Northern Ave., Signal Mountain, TN 37377-2843; has recently retired after 15 years as director of the School of Forestry at Louisiana Tech University. Teate is the only person to be named Distinguished Professor of Forestry in Louisiana Tech’s 53-year history. He has been an SAF member since 1954.

Lee Williams (BSF 1951) Rt. 3, Box 3246 D-13, Townsend, GA 31331; sapello@darientez.net; retired near Darien, GA after 40 years with Inland Container Corporation.

1960s

Frederick (Fred) W. Kinard, Jr. (BSF 1962, MS Forest Resources 1964) is a wildlife management coordinator with Westvaco Corp. in Summerville, SC. He was elected SAF Fellow in November.

Bill Oettmeier (BSF 1960) has been appointed by Governor Roy E. Barnes to the Education Reform Commission and is the 1999 recipient of the Alappaha Bar Association’s Liberty Bell Award.

John C. Sherrod (BSF 1960) 711 Charles St., Sitka, Alaska 99835; is a planning staff officer for the USDA Forest Service in Sitka, Alaska.

Wesley Wells (BSF 1966) former Georgia Forestry Commission Chief of Forest Protection, received the National Association of State Foresters Lifetime Achievement Award for more than three decades of exceptional performance.

1970s

Mark O. Bara (MS Forest Resources 1970) is a regional wildlife biologist with South Carolina Department of Natural Resources, where he has worked since 1970.

Barton D. (Barry) Clinton (BSFR 1979, MS Forest Resources 1989) works in the Coweeta Hydrolic Lab as a research ecologist. He and his wife, Patsy, have three children, Ben, Sarah and Emily.

Frederick (Fred) G. Gragg, (BSF 1936) a retired forestry executive, received the prestigious Southeastern Society of American Foresters 1999 Award of Excellence for the General Practice of Forestry. Mr. Gragg was recognized for his many years of service and outstanding accomplishments to the forestry profession and forest industry in the Southeast.

1980s

Scott Futch (BSFR 1986, MFR 1988) 2515 E. Glenn Ave., Suite 101, Auburn, AL 36831; is the president/owner of Auburn Timberlands, Inc. Scott, Krista, and son Zach have been living in Alabama since 1990.

Donald W. Hansford (BSFR 1989) P.O. Box 1376, Watkinsville, GA 30677; opened his own law firm. Married to Kelly for nine years, they have two children, Emily and Nancy.

Tyson W. Reed (BSFR 1987) P.O. Box 1876, New Tazewell, TN 37824; treed@ameraisafe.com; is the vice president of sales with the Amerisafe, Inc./
American Interstate Insurance Company (AIIC), which is a prominent workers’ compensation insurer of high hazard industries with an emphasis in logging and forestry.

William B. (Brad) Southern (BSFR 1982, MFR 1984) Elisabeth E. Southern (BSFR 1981, MS Forest Resources 1984) 15843 Lavenham Rd., Huntersville, NC 28078; Brad works as a controller with ABTco, a division of Louisiana-Pacific. They love being closer to Georgia.

Andy Tomlin (BSFR 1985) has joined Atlantic States Bank commercial lending unit in Norcross, GA, as its senior lender. He and his wife, Lisa, have four sons: Daniel, Joshua, Jacob and Ian.

She received the Outstanding Student Presentation Award for the second year in a row at the 23rd Annual Meeting of the Southeast Deer Study Group in Wilmington, NC in February.

Walter G. Fleming (BSFR 1998) is a 2nd year MBA student at Georgia Tech, and also works as an intern with Wachovia Timberland Investment Management.

Bryan Knox (BSFR 1998) works at Wiregrass Land and Realty as a forester/real estate sales rep. He handles GIS mapping, timber sales, inventory and land sales.

Carrie Long Leggett (BSFR 1995) and her husband, Neil, announce the birth of their son, Andrew Saville Leggett, born on October 26, 1999.

Christophler L. Beck (BSFR 1996) 342 Lob Cabin Rd. NE #4-D, Milledgeville, GA 31061; is a procurement forester with the Louisiana-Pacific Corporation.

Donald James Chastain (BSFR 1993) married Martha Chastain in September. He is a registered South Carolina forester with Willamette Industries.

Deek Cox (BSFR 1999) has been commissioned as an Ensign in the U. S. Naval Reserve.

Karen Dasher (BSFR 1996, MS 1999) is pursuing a Ph.D. at Clemson University.

John Gassett (MS 1995, Ph.D. 1999) is a deer and elk coordinator for the state of Kentucky.

Greshelda Hazleton (BSFR 1998) was married to Adrryl Shnord Addison in June.

George E. Jordan (BSFR 1995) married Julie Sheffield in July. They live in Atlanta, GA.

Snow (Bain) Kendall (BSFR 1990) is taking a break from forestry and GIS to stay at home with children, Melody and McKinzy. Plans to resume career when both children are in school.

Catherine Merz (MS Forest Resources 1998) is an associate forester with International Paper in NC.

Gary Peeples (MFR 1996) is an agroforestry extensionist/freelance writer with CARE/Guatemala.

Elizabeth Putman (BSFR 1999, Wildlife) was married to Jackson Patrick in October 1999.

Jason Reynolds (BSFR 1996, MS 1998) works for Mead Coated Board as a reforestation forester.
Zupko Honored as 1999 Young Alum

Mike Zupko, government relations director at the Georgia Forestry Association, has received the Young Alumnus Award from the University of Georgia’s Warnell School of Forest Resources Alumni Association. The award, new this year, recognizes alumni younger than 35 who have made significant contributions to the School, the University of Georgia and the forestry profession.

Zupko graduated from UGA with a degree in forest resources in 1995, served as a forest policy intern with the Georgia Forestry Association, and joined the GFA later that same year. Since then he has served on the Warnell School Alumni Association’s Membership Committee, where last year he was the top recruiter of new members. He was recently elected to the Alumni Steering Committee, which guides the direction of the School’s new programs.

“I value Mike’s professionalism, expertise, integrity and honesty,” said Warnell School Dean Arnett C. Mace, Jr. “He has earned an excellent reputation among state officials and members of the Georgia General Assembly. Mike serves in his capacity at GFA with excellence and maturity well beyond his years.”

Zupko, 24, and his wife, Susan, live in Bethlehem, Georgia.

Reed honored by American Pulpwood Association

Travis Reed (BSFR 1972), who was named “Southeastern Logger of the Year” in August by the American Pulpwood Association, went on to be named “National Logger of the Year.” He owns and operates Reed Logging, Inc. of Lincolnton, Georgia. Reed and his wife, Virginia Hilliard Reed, live in Evans, Georgia.

Karl Steinbeck (BSFR 1997) was married to Julie Peck in August. He is employed as a forester with International Paper in Bolton, NC.

Hans Stigter (Ph.D. 1997) has taken a post doctoral position in the Systems and Control group in the Department of Agricultural Engineering and Physics at the University of Wageningen in Holland.

Jeff Thurmond (BSFR 1992) is an area wildlife biologist with the USDA Natural Resources Conservation Service. He is also doing some freelance writing for Progressive Farmer magazine and Rural Sportsman magazine. Dagmar Thurmond (BSFR 1989, MS 1993) is an ecosystem manager with Delta National Forest. The Thurmonds have two daughters and are both enjoying their careers in wildlife management.

Leanne Valletti (BSFR 1998) 9561 Fontainbleau Blvd #206, Miami, FL, 33172; works with Elite Sales, a marine rigging equipment company.

Jingxin Wang (Ph.D. 1998) joined the faculty of West Virginia University in December as assistant professor. He will be responsible for teaching timber harvesting and conducting research in the forest operations area.

John Young (BSFR 1995) 145 Gillaspey, Crested Butte, CO, 81224; conmyoung@aol.com; is a supervisor with Osmose, Inc. He married Kerri Cameron in November 1998.
HOMECOMING

(at left) From left to right: Charlie Wike, David Mitchell, and Dicky Saunders

(below) John Mixon and Alumni Association President, Tom Norris

John and Becky Gallagher (below)

Harold and Mary Rozier and their daughter, Virginia (below)

(left) Frank Robertson

(above) David Mitchell, Thomas Marbut, and Sharon Ward

(above) Louise and Gus Pursley