Letter from the Chair

It is a privilege for me to introduce this first issue of our departmental newsletter. Great things are happening in your Land-Grant Forestry Department, and I will regularly use this column to call attention to our latest news and accomplishments. Even as this issue rolls off the press, we are welcoming students back to campus with renewed excitement about the fall semester and what is in store for the coming year(s).

The department’s undergraduate forestry program recently went through a 10-year reaccreditation review by the Society of American Foresters. This important but strenuous process is designed to confirm our ability to prepare and graduate professional foresters as the only accredited forestry program in Kentucky. We should know the results of the review in time for the next newsletter. Related to this is our recently revised undergraduate curriculum which is designed to produce graduates who can address an increasingly complex set of social, economic, and ecological issues that face professional foresters today. Please refer to the section below for more details.

I want you to know that the faculty and staff here have been working very hard to make these and other good things happen in the department – I am proud and honored to be the department’s new Chair. It would take this entire newsletter to properly recognize everyone who deserves mention, so I will simply say they all warrant accolades for their teamwork and dedication. I will acknowledge and thank Dr. Mike Lacki for his hard work as Interim Chair of the Department for the last year.

We have a great deal of work to do in the coming months; this is an important time for Kentucky’s Land-Grant Forestry Department – your Forestry Department. One of the most important things I will be doing is making connections with our alumni, stakeholders, and cooperators. I am looking forward to getting out into the state and meeting with as many of you as possible. In the meantime, I encourage you to stay in touch with us, stop by the office for a visit if you are in Lexington, or call if I can be of any service to you. Also, please visit our Alumni Updates page (www.ca.uky.edu/forestry/alumni) to let us know more about your current activities.

Terrell T. “Red” Baker
Chair and Professor

Revised Undergraduate Forestry Curriculum

We have exciting new changes within our undergraduate forestry program! Beginning fall 2009, we implemented our revised undergraduate forestry curriculum. The primary goal of the revised forestry curriculum is to produce graduates who are able to effectively address the complex economic, ecological, and social issues involving forest resources today. Several new courses have been added to the curriculum to provide students with instruction on the latest forestry technologies, skills to address complex socioeconomic issues involved with forestry, and information to effectively enhance the health and integrity of our forests. Traditional forestry courses remain to provide students with fundamental forestry concepts. To view the revised curriculum, please visit www.ca.uky.edu/forestry/curriculum.php
New Student Lounge in T.P. Cooper

We have a new student lounge downstairs in the T.P. Cooper Building in Room 7. The student lounge has a television, computer, tables, desks, shelves, and comfy chairs. Students can take a break between classes, study, or do homework.

Thank you to the Department of Forestry, Natural Resource Conservation and Management (NRCM) Program, and Office of Academic Programs for providing funding. Many thanks to Darryl Cremeans for his hard work to make this room a reality.

Forestry and NRCM students and faculty will gather in the new student lounge for a Grand Opening Pizza Party on Wednesday, September 8 at 5 p.m.

Meet the Undergraduate Faculty Advisors

Each semester undergraduate students meet with their advisors to discuss scheduling courses, career goals, and potential job opportunities. We would like to introduce you to the undergraduate faculty that students can select to be their advisor. If students have any questions or need help choosing an advisor, they can visit Dr. Jim Ringe, Director of Undergraduate Studies, in 108 T.P. Cooper Building or e-mail him (jringe@uky.edu).

Mary Arthur
Professor - Forest Ecology
Role of species composition in ecosystem processes, fire in the southern Appalachians, and invasive species and ecosystem dynamics. marthur@uky.edu

Chris Barton
Associate Professor - Forest Hydrology
Environmental quality, watershed management, wetland restoration, phytoremediation and terrestrial sequestration of carbon. barton@uky.edu

John Cox
Adjunct Professor - Wildlife/Conservation Bio.
Research and teaching in wildlife ecology, conservation, and management; human dimensions, environmental ethics and conservation history. jjcox@uky.edu

Songlin Fei
Assistant Professor - Forest Biometrics/Spatial Analysis
Forest biometrics, spatial modeling, and invasive species. songlin.fei@uky.edu

Michael Lacki
Professor - Wildlife
Wildlife ecology and conservation: species habitat relationships; biology and management of nongame wildlife; conservation of rare species. mlacki@uky.edu

John Lhotka
Assistant Professor - Silviculture
Silviculture of oak dominated forests, forest regeneration, woody biomass production, forest growth modeling, and invasive species. john.lhotka@uky.edu

Jim Ringe (Director of Undergraduate Studies)
Professor - Marketing/Econ/Wood Products
Applications of systems analysis, economic analysis, and economic engineering analysis to natural resource utilization problems. jringe@uky.edu

G. Andrew Stainback
Assistant Professor - Forest and Nat. Res. Policy
Environmental law, sustainable development and how policy and emerging market opportunities impact forest and natural resource management. gdrewst02@uky.edu

Mary Arthur
Professor - Forest Ecology
Role of species composition in ecosystem processes, fire in the southern Appalachians, and invasive species and ecosystem dynamics. marthur@uky.edu

Paul Kalisz
Associate Professor - Forest Soils/Instruction
Forest soils, forestry and natural resource ethics, forest measurements. pkalisz@uky.edu

David Wagner (Director of Graduate Studies)
Associate Professor - Forest and Population Genetics/Instruction
Forest and population genetics. dwagner@uky.edu
Welcome New Students!
We would like to welcome the new undergraduate and graduate students to our forestry program.

New Undergraduate Students Pursuing their Bachelor's Degree

New Graduate Students Pursuing their Master's Degree
- Jonathan Catron, advised by Dr. Stainback
- Jared Craig, advised by Dr. Lhotka
- Nikolas Eiche, advised by Dr. Barton
- Birendra K.C., advised by Dr. Stainback
- Abraham Levin-Nielsen, advised by Dr. Fei
- Hillary Otte, advised by Dr. Barton

Awards and Recognition
Graduate students, Ben Augustine and Josh Felch, were awarded travel grants by The Wildlife Society for their upcoming Annual Conference in Snowbird, UT.

Megan Buland, an undergraduate forestry student, received the 2010 John Mabry Forestry Scholarship from the Railroad Tie Association in July.

Graduate students, John Hast and Michael Shouse, won the forestry department’s 2010 Graduate Student Award for Excellence.

David Parrott, a graduate student, won the 2010 Outstanding Student Paper Award at the 17th Central Hardwood Forest Conference in Lexington, KY.

Summer Camp 2010
Rising forestry seniors excelled in the eight-week Summer Camp at Robinson Forest this year. Rob Paratley started the summer by giving students additional field experience in dendrology; noteworthy locations included a trip to Red River Gorge and Koomer Ridge, where Dr. Mary Arthur led a discussion about fire management. Students also went to Lilley Cornett Woods, a 200+ year old growth watershed near Skyline, Kentucky. Dr. Songlin Fei introduced students to surveying skills, GIS and GPS operations, forest inventory and measurement techniques, and computer applications and analysis of field data. For their final project, students surveyed the Bucklick Hollow watershed in Robinson Forest and presented their management recommendations.

The next few weeks of Summer Camp focused on the products side of the forestry business. Drs. Jim Ringe and Terry Conners introduced students to the steps between trees and wood products consumption including tree, log and lumber grading, sawmilling, and the types of products that each log could yield. Students also spent a week at Quicksand making custom laser-engraved parson’s tables, learning more about lumber defects, as well as utilization and manufacturing economics. Dr. Jeff Stringer wrapped up this year’s camp with a week of intensive silviculture instruction at Robinson Forest followed by a week-long field trip to see commercial forestry operations in action.

- Dr. Terry Conners, Extension Professor

Director of Graduate Studies
Dr. David Wagner is the Director of Graduate Studies in the Department of Forestry. If you are interested in learning more about the forestry graduate program or becoming a graduate student, please contact Dr. Wagner (dwagner@uky.edu).
Black Bear Research in Kentucky and Florida

Black bear research in Kentucky and Florida by wildlife and conservation biologist Dr. John Cox were recently featured television segments on Kentucky Afield and CNN.

In Kentucky, the black bear has only recently begun recolonizing the eastern portions of the state, but in Florida it is a threatened species where its range and numbers have dramatically declined due to rapid urbanization and human population growth. Research in Florida has concentrated on landscape scale connectivity and basic ecology of the second smallest bear population and has had direct impacts on land planning there. The bear research continues the pioneering work of the late Dr. David Maehr. - Dr. John Cox, Adjunct Professor
What’s New in Research

Highlights of Our Research Activities

Some of our current research centers on upland forest management, watersheds and hydrology, restoration and reforestation, vertebrate and mammalian ecology, and invasive species.

Upland Forest Management: Researchers are examining fire in the southern Appalachians with respect to fuels, stand structure, and oak seedling establishment. Work is also being conducted to evaluate seedling development, stand structure, and understory microenvironment after midstory removal. Department scientists are also examining the role of forest change and species composition in forest ecosystem processes.

Watersheds and Hydrology: Researchers continue to use Robinson Forest as a laboratory to examine the effectiveness of streamside management zones in protecting water quality in rugged terrain.

Restoration and Reforestation: Research includes investigating techniques for establishing woody bioenergy feedstock plantations on reclaimed surface mines. Other work focuses on revegetation, reclaimed surface mines with American chestnut.

Vertebrate and Mammalian Ecology: Researchers are investigating the ecology and management of the black bear and reintroduced elk in eastern Kentucky. Research is also being conducted to understand the status, distribution, and reproductive characteristics of river otters in Kentucky.

Invasive Species: Research includes assessing invasive exotic plants in urban forests and monitoring the invasion of Hemlock Woolly Adelgid in Kentucky. Other work focuses on invasive species and the alteration ecosystem dynamics.

Recent Grants

Arthur, Mary – Long-term Ecological Research at Hubbard Brook Experimental Forest (Institute of Ecosystems Studies)

Arthur, Mary – Challenge Cost Share: Prescribed Fire Research in the Daniel Boone National Forest (U.S. Forest Service)

Barnes, Thomas – Heritage Land Conservation Fund Publication (Kentucky Heritage Land Conservation)

Barton, Christopher – Long-term Effects of Forestry Best Management Practices (BMPs) on Hydrology, Water Chemistry and Woody Debris in Three Appalachian Headwater Catchments (U.S. Forest Service)

Barton, Christopher – Characterization of Headwater Seeps in the Frances Palk State Nature Preserve (Kentucky Nature Preserves Commission)

Barton, Christopher – ARRA: Stream System Field Condition Assessment Phase II (University of Georgia)

Barton, Christopher – Development and Implementation of Stream Restoration and Riparian Corridor Techniques for Enhancing Water Quality in the Cane Run Watershed (Natural Resources Conservation Service)

Cox, John – The Common Raven in Cliff Habitat: Detection and Occupancy (Kentucky Department of Fish and Wildlife)

Cox, John – Dispersal and Population Expansion of the Black Bear in Eastern Kentucky (Kentucky Department of Fish and Wildlife)

Fei, Songlin – Precision Agriculture Subproject 9: Spatial Prioritization for Invasive Species Management (Cooperative State Research Education and Extension)

Lacki, Michael – Roosting and Foraging Behavior of Rafinesque’s Big-eared Bat Near the Northern Limits of the Species Range (Kentucky Department of Fish & Wildlife)

Lhotka, John – Silvicultural Approaches for Regenerating Upland Stands in the Northern Cumberland Plateau (U.S. Forest Service)

Stringer, Jeffrey – Economic Impact of Fire on Forest Product Values in the Appalachian Regions of Kentucky (Kentucky Energy and Environment Cabinet)

Stringer, Jeffrey – Kentucky Woodland Magazine: Degraded Stand Revitalization and Small Woodland Management (Kentucky Energy and Environment Cabinet)

Stringer, Jeffrey – Forest Management Assistance on State Wildlife Management Areas and Private Land (Kentucky Department of Fish and Wildlife)

Stringer, Jeffrey – Long-lived Wood Products: Carbon and Competitive Advantages for Hardwood Mills (U.S. Forest Service)
UK Forestry Extension

All universities engage in research and teaching, but the nation's more than 100 land-grant colleges and universities (including the University of Kentucky), have a third critical mission - Extension. The University of Kentucky's Cooperative Extension Forestry Program focuses on effectively delivering knowledge, insight, and solutions that address forest and forest-industry-related challenges affecting the quality of life of all Kentuckians. Extension develops and delivers educational and training programs to enhance economic opportunities for individuals, businesses and communities, while improving the stewardship and health of Kentucky's forestlands, associated natural areas and resources. UK Forestry Extension provides a wide variety of programs shown here.

Meet the Extension Team

Bobby Ammerman
Associate - Forest Industry
Primary and secondary wood industry technical training programs; forest products certification; individual industry assistance/support. bammerman@uky.edu

Tom Barnes
Professor - Wildlife
Wildlife ecology and biodiversity, urban wildlife management, wildlife damage management, and religion and natural resource conservation. tbarnes@uky.edu

Terry Conners
Associate Professor - Forest Industry
Primary and secondary forest industry programs, general wood identification and wood-related homeowner problems. tconners@uky.edu

Carroll Fackler
Specialist - Forest Industry
Wood-related research solutions to forest industries; educational & extension training programs; in-service training for agents and wood-based businesses. cfackler@uky.edu

Deborah Hill
Professor - Nontimber Forest Prod./Agroforestry
Non-timber forest products, small woodlot management, urban forestry, agroforestry, permaculture, and square foot gardening. deborah.hill@uky.edu

Doug McLaren
Area Extension Forester - Mgmt. and Youth
Traditional forestry extension programs; proper forest management practices of hardwoods for forest landowners, families, and young people. dmclaren@uky.edu

Chris Reeves
Management Certification Forester
Forest management certification and forest operations research. christopher.reeves@uky.edu

Jeff Stringer
Professor - Silviculture and Forest Operations
Continuing education for foresters, loggers, woodland owners; Director KY Master and Certified Logger programs, editor Kentucky Woodlands Magazine. stringer@uky.edu

Billy Thomas
Associate - Woodland Owners Programs
Develop and coordinate woodland owner educational programs; Kentucky Woodlands Magazine; provide forestry support to county Extension agents. billy.thomas@uky.edu

Renéé Williams
Information Specialist Sr.
Marketing and development of continuing education programs; graphic design; Kentucky Woodlands Magazine; Web site development; webinars. rdwill5@uky.edu

Logging Programs
- Kentucky Master Logger and Certified Master Logger Programs

Forest Industry
- Technical Training Series for Secondary Forest Industry
- Railroad Tie Workshops
- Primary industry and drying workshops

Youth
- KY Forest Leadership Program
- Junior / Senior 4-H
- Wood Magic

General Public
- Biodiversity and Ecosystem Management

Woodland Owners Programs
- Woodland Owners Short Course
- Fall Webinar Series
- Kentucky Woodlands Magazine
- Individual workshops and materials on agroforestry, non-timber forest products, timber sales, sustainable woodland management

Forestry and Natural Resource Professionals
- Professional Forestry Workshops and Webinars
- Professional Forestry Notes

To learn more, visit www.ukforestry.org
We Need Your Help!

Dear Forestry Department Alumni,

We plan to produce several issues of this newsletter each year. To this end, we are making a significant effort to update our records of alumni, their whereabouts, and their activities.

To ensure that we keep you up to date on the latest departmental activities, efforts, and accomplishments – not only through the newsletter, but also through other outlets, please take some time to visit www.ca.uky.edu/forestry/alumni, or simply e-mail forestry.department@uky.edu and update your contact information. This will help us keep your colleagues and classmates informed about your activities.

We want to hear from you!

Alumni in the Field

In August, Josh Brinks started a new job at the Smithsonian Institution Environmental Research Center in Edgewater, Maryland as a Biological Technician in Forest Ecology and Dynamics of Forest Tree Communities. Josh is assisting a large multidisciplinary project to assess the community ecology, spatial interactions and dynamics of woody plants.

Josh graduated with a Masters in Forestry in May 2010. As a Masters student, Josh worked with his advisor, Dr. John Lhotka, on a project that tested the effect of fertilization and irrigation on biomass accumulation and allocation in bioenergy feedstock plantation located on a reclaimed surface mine.

Interns Assist with Forest Inventory Data Collection

For the last decade, the Kentucky Division of Forestry (KDF) has hired forestry students as summer interns to assist in the collection of critical forest inventory plot data. These interns are given the opportunity to receive practical forestry experience by working with U.S. Forest Service and KDF foresters in the collection of forest health and ozone plot data from across the state. Significant training is provided on how to evaluate sites using key health indicator species, collecting necessary samples and estimating stand conditions. Over 50 forest health plots and 35 ozone plots are monitored each year and the data collection must occur during the peak of the growing season when the forest stands are in full leaf and any health threats and ozone damage are evident.

At each forest health/ozone plot, the following characteristics are examined:

- Amount of down woody debris
- Un-compacted crown ratio
- Ratio of dominant vs. co-dominant stems
- Crown density and transparency
- Sapling vigor
- Leaf litter and duff percentage and depth
- Percent and height of live shrub cover
- Percent and height of live herb cover
- Forest fuel bed depth
- Signs of ozone damage by using key indicator species – samples are collected and shipped to the U.S. Forest Service for analysis

The forest health/ozone plot data is included in with the division's annual Forest Inventory and Analysis (FIA) data and all information generated gives us an excellent perspective on how Kentucky’s forests are doing. For more information about the current growing conditions of Kentucky’s forestlands, view the complete FIA report or the FIA fact sheet highlights at forestry.ky.gov/ForestryPublications/Pages/default.aspx

KDF appreciates the dedication of these interns and, over the past decade, has hired many into full-time positions.

- Kentucky Division of Forestry
Win a Prize! Name the Newsletter Contest

We need a name for our newsletter! Please send us your suggestions. E-mail us your name and suggestion to forestry.department@uky.edu

Alumni Reminder

Please visit www.ca.uky.edu/forestry/alumni, or simply e-mail us at forestry.department@uky.edu and help us keep our alumni contact list updated. We look forward to hearing from you!

Upcoming Events

**September 11**  
Woodland Owners Short Course, Casey County, KY

**September 15 - 18**  
Ag Roundup, Lexington, KY

**September 28 - November 30**  
Fall Webinar Series

**October 7**  
Tree Farmer of the Year, Jackson County, KY

**October 14**  
Win With Wood at Quicksand in Jackson, KY

In Memoriam

**Dr. Jim Olsen** - Retired Associate Professor 1979 to 1992, passed away July 2010.

**Mr. Andrew “Junior” Marshall** - Junior had been involved with the department and Robinson Forest since we opened the doors in the 1950s. He passed away March 2009.

**Mr. Will Marshall** - Will was involved with the Robinson Forest his entire life until his passing, January 2009.

**Dr. David Maehr** - Professor of Conservation Biology 1997 until his passing in June 2008.