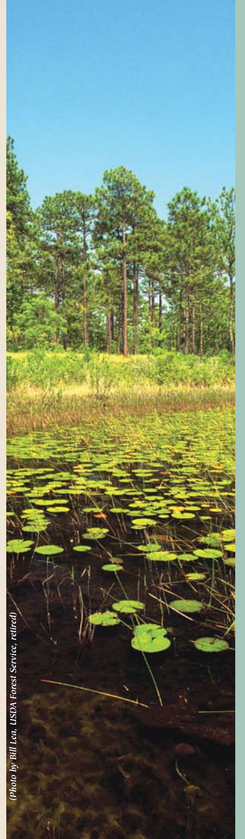
Research Work Units

Location & Project Leader	Name & Web Site	Phone
Forest Ecosystem Restoration and Management		
Asheville, NC David Loftis	Upland Hardwood Ecology & Management www.srs.fs.usda.gov/bentcreek	828-667-5261
Auburn, AL Kris Connor	Restoring Longleaf Pine Ecosystems www.srs.fs.usda.gov/4111	334-826-8700
Monticello, AR James Guldin	Southern Pine Ecology www.srs.fs.usda.gov/4106	870-367-3464
Saucier, MS Dana Nelson	Genetics and Foundations of Productivity www.srs.fs.usda.gov/organization/unit/mississippi.htm#SRS-4153	228-832-2747
Forest Values, Uses, and Policies		
Athens, GA Ken Cordell, acting	Urban and Social Influences www.srs.fs.usda.gov/trends	706-559-4263
Auburn, AL Bob Rummer	Forest Operations www.srs.fs.usda.gov/forestops/	334-826-8700
Pineville, LA Les Groom	Characterization and Properties of Wood www.srs.fs.usda.gov/4701	318-473-7268
Research Triangle Park, NC David Wear	Forest Economics and Policy www.srs.fs.usda.gov/econ	919-549-4093
Threats to Forest Health		
Asheville, NC Danny Lee	Eastern Forest Environmental Threat Assessment Center www.srs.fs.usda.gov/cc/threatassessment.htm	828-257-4854
Athens, GA John Stanturf	Disturbance Ecology http://srs.fs.usda.gov/disturbance	706-559-4316
Pineville, LA Kier Klepzig	Insects, Diseases, and Invasive Plants of Southern Forests www.srs.fs.usda.gov/4501	318-473-7232
Forest Watershed Science		
Franklin, NC Jim Vose	Forest Watershed Science www.srs.fs.usda.gov/coweeta	828-524-2128
Lincoln, NE Michele Schoeneberger	National Agroforestry Center www.nac.gov	402-437-5178
Stoneville, MS Ted Leininger	Bottomland Hardwoods www.srs.fs.usda.gov/cbhr	662-686-3154
Natural Resources Inventory and Monitoring		
Knoxville, TN Bill Burkman	Forest Inventory and Analysis www.srsfia2.fs.fed.us	865-862-2000



(Photo by Bill Lea, USDA Forest Service, retired)

For More Information:

Please contact us anytime you have questions or comments about the services of the Southern Research Station.

To request a copy of the complete strategic plan document, please contact the Southern Research Station, 200 W.T. Weaver Boulevard, Asheville, NC 28804-3454 or call 828-259-0509.

To receive our quarterly science magazine and catalog of recent publications, CoMPASS, send us your name and address and we will be happy to add you to our mailing list. The magazine is also on our Web site and you can subscribe to a listserv to receive it by email in PDF format.

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a strategic framework for forest research and development *in the south*

U.S. Department of Agriculture
Forest Service

Southern Research Station

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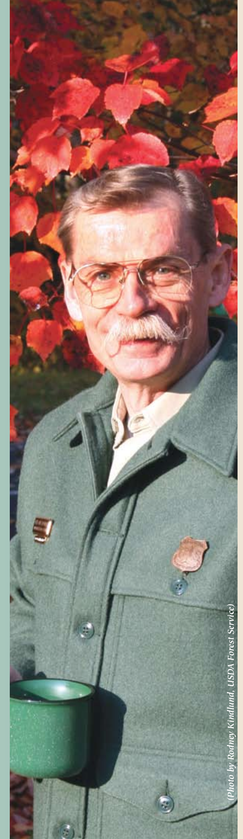

(Photo by Rodney Kirkland, USDA Forest Service)

Our Mission is to create the science and technology needed to sustain and enhance southern forest ecosystems and the benefits they provide.

INTRODUCTION

The Southern Research Station serves 13 States, with a scientific workforce of about 135 researchers; supporting technical, professional, and administrative employees; and a system of laboratories and experimental forests stretching from eastern Texas to northern Virginia. We conduct research in collaboration with universities across the country and with partners in other government agencies, nongovernmental organizations, professional associations, and corporations.

Following a consolidation of the Southern and Southeastern Experimental Stations in the mid-1990s, we began a strategic combining and refocusing of research work units. This process included public involvement with our major customers and affected interests: the National Forest System, forest and recreation industries, universities, corporate and private forest landowners, and other public agencies. These contacts helped us to identify the major issues that needed to be a part of our current and future research programs.

In the years since our consolidation, new issues have emerged with escalating changes in land ownership, demographics, and biological and physical environments. These have combined with an aging workforce, flat budgets, and rising administrative costs as drivers for a new strategic framework aimed at preserving our commitment to sustainability but realigning our scientific workforce into fewer, larger research units that are organized into five focused science areas.

PURPOSE OF OUR STRATEGIC FRAMEWORK

Our new strategic framework allows us to work with other members of the forestry community on a broader scale, across State and local boundaries, to respond to ever-more complex issues challenging natural resource management. It provides a mechanism to leverage our science and resources in an integrated fashion and to assure accountability in our research program. This framework supports our commitment to collaborative stewardship, both within our workforce and with our partners, enabling delivery of usable information and technology to implement sustainable land and resource management.

SUSTAINABILITY

The USDA Forest Service is committed to the goal of sustainability, which is defined as the ability of biophysical resource—or ecosystems—to meet human needs and wants without degradation. By maintaining forest health, diversity, and productivity, sustainable forest management ensures that commodity, cultural, and environmental needs of present and future generations can be met.

CHANGING CONDITIONS IN THE SOUTH

After a century of relative stability, the last decade has seen dramatic population increases, demographic changes, and parcelation of ownerships in the Southern States—beginning a trend that is expected to continue into the 21st century. The South is becoming increasingly urban. Rising population is accompanied by increasing demands on a resource that is becoming more fragmented and unavailable, producing an increasing complexity of opinions on how remaining forested areas should be managed.

In the 1500s, forests stretched from the Atlantic Coast to the plains of central Texas and Oklahoma. As the South was settled by Europeans, the forests provided timber for home building and many other uses, a place for grazing livestock, and habitat for game. Much of the economic strength of the South is based on its history of contributing

(Photo by Bill Lea, USDA Forest Service, retired)

forest products for use by people throughout the country. Southern forests are highly productive; trees regenerate and grow quickly in this land of good soil and plentiful rainfall. About 40 percent of the nation's productive forested acres are in the South, which produces more timber than any single country in the World.

In addition to being an invaluable source of wood products, forested lands in the South support a growing recreation business, remove contaminants from air and streams, supply abundant water for homes and industry, and provide diverse habitats for plants, animals, fish, and birds.

Nearly all of the South's forest land is privately owned, with only about 11 percent in national forests. Forest products companies, once making up about 20 percent of forest owners, have begun selling their holdings to timber management companies who purchase land for a variety of reasons, including real estate development. The largest ownership (70 percent) consists of individuals, families, and corporations whose parcels are less than 100 acres.

There are no indications that economic and social demands for forest resources might decrease although there is evidence that keeping forest land in forests might become a challenge. New factors are emerging which will have profound consequences to the management forest resources. They include:

- Changing land use
- Changing climate
- Changing biological communities
- Changing markets for forest products

These changing conditions provide the relevant context in which decisions about the Station's science program, workforce, and science delivery must be considered. To produce the right science that addresses relevant problems, we must understand and recognize the implications of these significant social and ecological changes that are altering the face of the South.

STRATEGIC FRAMEWORK COMPONENTS

Our strategic framework is based on three components of forest sustainability:

Measuring and Monitoring Forest Resources. We define "measuring" as an objective and quantitative assessment of forest resource, environmental, or social attributes. "Monitoring" is a series of repeated measurements that permit assessment of trends in critical resources. The measuring and monitoring of forest resources provides feedback on management and policy implementation and on health and change.

Understanding Ecosystem Structure, Function, and Process. Achieving sustainability and meeting expectations for environmental quality require an understanding of ecosystem integrity and function. The ability to provide multiple benefits within the capacity of ecosystems rests on expertise in understanding and predicting system response to change.

Ensuring Environmental Quality and Sustainable Productivity. The challenge for this century will be to identify management approaches that sustain and enhance productivity of Southern forests while providing commodity and noncommodity benefits. The focus will be on solving problems, providing effective tools, and identifying future impacts before they occur to ensure environmental quality, sustainable productivity, and continued investment in southern forests (ecosystem services).

REALIGNMENT INTO SCIENCE AREAS

Since the late 1990s, our capacity to continue productive research has been threatened by declining budgets, the changing nature of research questions, and shifts in customers and their expectations. Earlier organization structures that had clearly reflected our scientists' capabilities and the uniqueness of the Southern landscape began to lose relevance when applied to the emerging issues of the 21st century. Fire, global change, nonnative plant invasions and other disturbances are replacing a single species or forest type as a research focus, while the impacts of development and land parcelation on sustainability often far exceed the impacts of all forest management options. These research problems require highly integrated research program incorporating insights from multiple disciplines.

Recognizing the necessity of organizational change, we set out to provide continuity of research units in working with partners and serving current customers, while improving our ability to conduct integrated research and broaden our customer base. Our new organization consists of five science areas representing the core strengths of our science program and 15 research units, consolidated from 28 to increase administrative efficiency. This approach shifts science planning and research selection from the research unit to the science area, which will improve engagement with customers in defining issues and lead to more relevant and consequential research results.

Inventory and Monitoring. Quantifying and monitoring the condition of natural resources in the South is critical for determining ecosystem responses to forest health threats and improvements in natural resource condition resulting from management activities. **Natural Resources Inventory and Monitoring** will provide the knowledge and tools required to quantify, monitor, and predict the condition of natural resources. (Bill Burkman, 865-862-2073, bburkman@fs.fed.us)

Forest Threats. Forest ecosystems in the South are facing increased threats from factors such as nonnative and native insects and disease, invasive plants and animals, wildfire, and climate change and variability. **Threats to Forest Health** will provide the knowledge and tools required to predict, prevent, eradicate, and mitigate the impacts of forest health threats. (Bruce Jewell, 828-257-4307, bjewell@fs.fed.us)

Watershed Science. Forested watersheds (upland forests, working forest and agricultural lands, functioning wetlands, bottomland forests, and their components) will be increasingly relied upon to provide clean and dependable water to support aquatic ecosystems and satisfy the demands of a rapidly growing human population in the South. Forest **Watershed Science** will provide the knowledge and tools required to manage the full range of forest watershed resources in a dynamic and complex landscape. (Greg Ruark, 256-372-4540, gruark@fs.fed.us)

Restoration and Management. Population growth and demographic shifts in the South are accelerating changes in southern forest ecosystems. New and improved tools and technologies are needed to successfully restore and manage ecosystems in this changing environment. Enhanced knowledge of forest genetics, physiology, silviculture, wildlife biology, and ecology is needed to create, develop and support the needed tools and technologies. **Forest Ecosystem Restoration and Management** will provide landowners with the awareness and ability to produce a wider array of economic, ecological, and societal benefits. (Nancy Herbert, 828-257-4306, nherbert@fs.fed.us)

Forest Values. Natural resources and humans are inextricably linked in the South. These linkages will only strengthen as increased urbanization, globalization, and shifting values influence and alter how people interact with forests. **Forest Values, Uses, and Policies** will provide the knowledge and tools required to manage impacts and optimize benefits of human-forest interactions. (John Kelly, 828-257-4309, jkelly@fs.fed.us)

It is the integration of these five science areas that will lead to an effective and appropriate science program at the Station, and for this we have designated an oversight group composed of the five science area leaders. To provide focus for integration across the science areas, we have begun to work with stakeholders from all walks of life on forecasting possible futures that could result from the factors influencing southern forests. The outcome of that effort will be a set of overarching themes that will be incorporated both within the science areas and within individual research unit portfolios. As possible futures become realities and new possibilities are defined, additional overarching themes will emerge providing a dynamic, cohesive, and comprehensive approach to research planning and allocation of resources.