



GEORGIA

FOREST SERVICE RESEARCH AND DEVELOPMENT

STATE FUNDING HISTORY	Enacted FY 2003 (\$)	Enacted FY 2004 (\$)	Pres. Budg. FY 2005 (\$)
ATHENS			
SRS-4104 Disturb/Southern Forests	1,813,624	1,797,332	1,897,332
SRS-4505 Insects and Diseases	1,844,288	1,975,721	2,013,721
SRS-4901 Trends and Urban Forestry	731,888	725,314	815,314
GEORGIA TOTAL	4,389,800	4,498,367	4,726,367

RESEARCH & DEVELOPMENT, a division of the USDA Forest Service (FS R&D), strives to be the "go to" organization for information and solutions to sustain forests and rangelands and the values they provide people. FS R&D has the flexibility to address today's issues effectively and to respond to tomorrow's needs. Among the world's leaders in forest conservation research, scientists contribute to the stewardship of land, real property and society by providing research results that help create jobs and affordable homes, and improve the health of trees, forests and forest ecosystems. Innovative research products permit the Forest Service and other public and private land managers to monitor and manage forest responses to environmental change, contributing significantly to the sustainability of the nation's forests and rangelands and improving human health.

FS R&D operates six research stations, the Forest Products Laboratory, and the International Institute

of Tropical Forestry located in Puerto Rico. It employs over 500 scientists and hundreds of technical and support personnel at 67 field sites throughout the nation. The FY 2005 President's Budget includes \$280,654,000 for Forest and Rangeland Research.

The **Southern Research Station**, with headquarters in Asheville, NC, and 26 Research Work Units in eleven States, conducts forest research and development in laboratories, on university campuses, and at experimental forests in the 13 Southern States (i.e., FL, LA, OK, NC, KY, GA, SC, TN, MS, TX, AR, AL, and VA). The Southern Research Station maintains three research work units, at the Forestry Sciences Laboratory at the University of Georgia and the Hitchiti Experimental Forest near Macon.

The FY 2005 President's Budget includes \$50,640,000 for the Southern Research Station,

an increase of \$1,304,000 over FY 2004 Final Appropriation.

ATHENS

SRS-4104, Disturbance & the Management of Southern Pine Ecosystems. The mission of this unit is to increase understanding and develop applications of disturbance to sustain the productivity and functions of southern pine ecosystems.

SRS-4505, Insects and Diseases of Southern Forests. The mission of this unit is to provide the knowledge about insects and microorganisms needed to manage productive, healthy seed orchards, nurseries, plantations, and native forests.

SRS-4901, Assessing Recreation Trends and Urban Forestry. The unit mission is to provide up-to-date information on public demands, perceptions, values, and benefits from forests. A growing emphasis is improving information for urban forest management. This unit also studies how population and demographic changes are affecting forest resources and rural lands Southwide.

SRS-4154 subunit, Biological Foundations of Southern Forest Productivity and Sustainability. The majority of the members of this Research Work Unit are stationed at Research Triangle Park, NC. The Athens portion of this unit conducts research on tree roots and microbial associates to understand belowground processes in forests and tree metabolism. The

Project Leader for this unit is stationed at Research Triangle Park, NC.

JULIETTE

Hitchiti Experimental Forest. The 5000-acre Hitchiti Experimental Forest is located near Macon, Georgia, and is the site of the Brender Demonstration Forest, a cooperative effort by the Station and the Georgia Forestry Commission to showcase pine management for non-industrial private landowners.

RESEARCH RELATED

Forest Inventory and Analysis Research (FIA). Forest Inventory and Analysis is administered in Knoxville, TN, Asheville, NC, and Starkville, MS. The FIA Unit develops, analyzes, and maintains forest resource information for the Southern States, Puerto Rico and the Virgin Islands; and conducts research to provide improved inventory and evaluation techniques. The FIA program includes plot-based forest health indicators along with comprehensive forest inventory data to provide information on the status, trends, and condition of forest resources. Annualized forest inventories are currently being implemented across the South. Researchers in the FIA unit are conducting annual inventories in Georgia, in collaboration with the State. The within-State costs for annual inventory field data collection amount to approximately \$600,000.

FIRE RESEARCH IN GEORGIA SUPPORTS THE NATIONAL FIRE PLAN

National Fire Plan funding continues the long tradition of Forest Service Research and Development building and leading Federal, State,

and local partnerships (the guiding principle of the 10 year Comprehensive Strategy) to develop and deliver the scientific foundation of modern management practices.

FY 2005 PROGRAM CHANGES:

- The FY 2005 President's Budget calls for increased research in areas associated with the President's Healthy Forests Initiative, including invasive species impacts, and the expansion of technology transfer activities. The FY 2005 President's Budget also provides new funding for research on water quality and quantity issues; and funding to cover inflationary fixed cost increases.
- New research on water and watershed issues will:
 - Provide \$100,000 to expand research on the effects of various disturbance regimes on watersheds and carbon cycling in watersheds at SRS-4104.
 - Provide \$107,000 to expand research at SRS-4901 on current urban forestry issues and improved interpretation of forest sciences generally for urban applications. As well, research will be added concerning off-highway vehicle use of forests and its effects.
- An increase of \$100,000 for new research on invasive species issues will be used to expand ecology and control of non-native invasive plants research at SRS-4505.
- An increase of \$78,000 for fixed cost will be used to expand research on short rotation woody crops and their use as biofuels at SRS-4104.

- Funding priorities in the FY 2005 President's Budget will be supported, in part, by curtailing research efforts in the following:
- Research on fuel loading in the wildland urban interface at SRS-4104.
- Research on fusiform rust and other tree nursery diseases at SRS-4505.
- Research on the extent to which private landowners permit or restrict public access for recreational usage at SRS-4401.
- Research on below ground physiological issues at SRS-4154.
- Forest Service Research and Development will lead an Agency-wide effort to optimize the delivery and practical use of research findings. This is essential to successful implementation of Forest Service priorities, including the President's Healthy Forest Initiative. Opportunities have been identified that leverage current science and technology applications efforts in healthy forests applied science, watershed management, invasive species, hazardous fuels utilization and management, and community preparedness. New funds in FY 2005 will be targeted to leading-edge technical assistance on a competitive basis.

SIGNIFICANT RESEARCH PRODUCTS:

- Continued work on a 40-year study to examine the effects of prescribed burning on longleaf pine forests in Florida and South Carolina. The plots are burned on regular intervals (1, 2, and 4 years), and the effects on various characteristics of the stand are measured. This year's measurements looked at the changes in understory vegetation and the

effect on insect populations and compared those to unburned areas.

- Final harvests were made in FY 2004 on experimental plots established in 1954 to determine the effects of intensive management on timber yield and log quality in loblolly pine, and to learn if sawlogs could be produced in 30 years. Concluded in 1988, the original study determined that sawlogs could be produced in that time period with appropriate intensive management. This year's harvest confirmed those findings, showing that intensively managed stands produced logs that averaged 37 percent larger than untreated, control stands.
- Continued studies to improve the ability to forecast smoke dispersal from prescribed fires to assist managers in meeting air quality standards.
- Continued work on finding biological controls to kudzu.
- Continued work on understanding how white pine cone beetles (a major seed orchard pest) are attracted. This will improve orchard management and yields.
- Continued work on the National Survey of Recreation and the Environment, a primary source of demographic trends and how they affect recreational activities and attitudes toward land management. The information is widely used by all federal land management agencies, state agencies, and private industry.

SOME CLIENTS/COLLABORATORS:

Georgia Forestry Commission
International Paper
Joseph W. Jones Ecological Research Center
Natural Resources Conservation Service
North Carolina State University
Southern Region (NFS and S&PF)
Sporting Goods Manufacturing Association
University of Georgia
University of Tennessee
U.S. Department of Energy