

Project Leader's Report

April - 2003



USDA Forest Service - Southern Research Station - 320 Green Street Athens GA 30602 - <http://www.srs.fs.fed.us/disturbance>



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Technology Transfer :

• Mike Rauscher presented a paper entitled "The Encyclopedia of Southern Appalachian Forest Ecosystems: A Prototype of an Online Scientific Knowledge Management System" (Deb Kennard is lead author) at the IUFRO Conference on Decision Support for Multiple Purpose Forestry: A Transdisciplinary Conference on the Development and Application of Decision Support Tools for Forest Management, Vienna, Austria, April 23-25.

• John Stanturf attended the indoor sessions of the Southern Leadership Tour, held at Flinchum's Phoenix at the Whitehall School Forest, University of Georgia. This is the re-instituted Southern Dean's Tour. Stanturf presented an overview of fire research in the unit, highlighting the Southern High Resolution Modeling Consortium. The group will probably continue to meet at least biennially. They identified some issues to pursue jointly: common

southern forestry message, research agenda, Farm Bill, workforce planning, management tools, and the developing Southern Forest Research Partnership, a new super-coop.

• Fred Cubbage, NC State University, gave an overview of the National Research Council committee report that he chaired, "National Capacity in Forestry Research." One finding was that the number of forestry faculty in universities and research scientists in the Forest Service have declined since the mid-1980s, but a substantial amount of research on forest ecosystems is conducted elsewhere. The NRC group concluded that forestry research capacity is at risk, due to unprecedented public pressure and demands, declining forest resource base (i.e. managed forestland), declining public expenditures for research, teaching, and extension. They identified the need for interdisciplinary and integrative approaches. Cubbage stated that there

Outreach Activities:

• Nine groups with a total of 178 people toured the Brender Forest during the month of April. These groups included the Forest Planning Team from the Chattahoochee-Oconee National Forest, Boy Scout Troop 170 from Macon, the Montessori School from Macon, the Southern Forest Leadership Tour, two environmental science labs from Mercer University, an Abraham Baldwin Agricultural College silvicultural class, an Environmental Ethics class from Georgia College, and a USFS, Southern Research Station FIA raining session.

• Approximately 150 hunters took part in the four cooperative turkey hunts this month on the Piedmont National Wildlife Refuge and the Hitchiti Experimental Forest. There were a total of 51 turkeys taken 11 of these from the Hitchiti. Fifty-four people hiked the Hitchiti Trail and 60 people visited the office for information.

• The silviculture class from Abraham Baldwin Agricultural College (ABAC) visited the Hitchiti Experimental Forest on April 11. Boyd Edwards spoke with the students about the

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Outreach
Activities:

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Piedmont Site Preparation Study, the natural stand studies and the opportunity to re-introduce longleaf pine onto loblolly sites that have been infested with Southern Pine Beetles.

- **The Southern Leadership Tour included several stops at the Hitchiti Experimental Forest where Boyd Edwards talked about the natural stand studies and the Longleaf (Piedmont variety)/Loblolly Pine Inter-Plants. Study cooperators include Terry Price (Georgia Forestry Commission); Dr. Barry Shiver (The University of Georgia) and John Moore (Brender Demonstration Forest). John Moore also spoke to the group during the tour.**
- **Planting of two demonstration areas to promote planting of the Mountain Variety of Longleaf Pine in the Piedmont of Georgia was completed on the Brender Experimental Forest, and John Moore is working with Tommy Carroll of the Southern Wood Producers Association to put together a temporary logging road training session.**

has been minimal follow-up, cooperation, or leadership since the report was released.

- Marian Lathrop, Information Management Assistant in the Rocky Mountain Research Station, will use the web page template for experimental forests developed by Dmitry Lima and Pat Outcalt for the national experimental forest web page. Mac Callaham made the connection.
- Stanturf attended the thesis defense for Andrea Leach, MS Student with Chris Peterson in Botany. Leach's research, supported by the unit under a cooperative research agreement, looked at the influences of disturbance severity and salvaging on patterns of forest regeneration after severe wind disturbance. Leach concluded that there was little difference between understory response in salvaged versus unsalvaged stands. Other committee members included Rebecca Sharitz and Bruce Haines. Congratulations, Andrea!
- Mr. Dean Kubacz successfully defended his thesis on April 17. Mr. Kubacz is completing a Master of Science degree at Clemson University and has been supported by SRS-4104. His study dealt with the impacts of fuel-reduction treatments on small mammal abundance and diversity. This work was a component of the National Fire and Fire Surrogate Study at the Southeastern Piedmont site. Tom Waldrop served as a research advisor on the graduate student committee. Congratulations to Dean Kubacz.
- Ms. Kim Crider successfully defended her thesis on April 30. Kim is an Ecologist with the Research Work Unit and a member of the Piedmont and

Appalachian Team. The University of Tennessee, Knoxville Department of Geography in August, will award her Master of Science degree. Her research dealt with long-term diversity implications of different regenerations techniques for pine-hardwood management. Her study was a follow-up study to earlier work done by Tom Waldrop and Jim McMinn. Tom Waldrop served as a research advisor on Kim's graduate student committee. Congratulations to Kim.

- Scott Goodrick presented a paper entitled "Incorporation of radar precipitation estimates into a drought index applicable to wildland fire" at the 2003 Georgia Water Resources Conference in Athens, April 23-24.
- The latest issue of the journal *Forestry* (Oxford University Press) is a special issue from the conference sponsored by the unit a year ago in Denmark on restoration of temperate and boreal forests. Guest Editors of the issue included Emile Gardiner, SRS-4155 (Stoneville); Magnus Löf, Southern Swedish Forest Research Centre, and Katrine Hahn, Royal Veterinary and Agricultural University (Denmark). Two of the papers were by unit authors.
- Stanturf will attend the Forest Engineering Conference in Växjö, Sweden in May and present an invited seminar at the Southern Swedish Forest Research Centre in Alnarp.

"Do not go where the path may lead, go instead where there is no path and leave a trail."

Ralph Waldo Emerson

- Callaham gave an invited seminar at Duke University, Nicholas School for the Environment and Earth Sciences on April 4. The talk focused mostly on work performed during his time in graduate school, but he also met informally with graduate students and faculty to discuss current projects and specifically, collaborative work underway at Callhoun Experimental Forest.



High intensity flames are used for stand replacement for Table Mountain pine. These fires open serotinous cones and open the canopy to allow abundant sunlight to reach the forest floor.



Prescribed crown fires were not attempted in the southeastern United States until the mid-1990s. Ignition of large areas by helicopter is allowing greater control of prescribed fires.

- On April 3, the Piedmont and Appalachian Team assisted the Tallulah Ranger District of the Chattahoochee National Forest in conducting a prescribed burn in the War Woman Wildlife Management Area. The 1,100-acre burn was in support of Tom Waldrop's research on regenerating Table Mountain pine stands. Crown fires were prescribed to open serotinous cones and to open the canopy to prepare the seedbed. The team will follow regeneration dynamics in this burn unit and in 4 other burn units throughout the south to compare regeneration success after fires of different intensities.

- Deb Kennard and a team of scientists from The Nature Conservancy were in Panama and Costa Rica April 22-29 to do an assessment of fire-related issues in national parks. The team assessed current fire regimes, identified research gaps, and evaluated fire management planning and training needs. The trip was part of The Nature Conservancy's Global Fire Initiative, with funding from the USDA Forest Service International Programs.



The helicopter drops plastic spheres (known as ping-pong balls) that contain chemicals that start a fire. With this technology, firing patterns are easy to control. Large areas can be burned quickly, thus allowing greater safety and better smoke management.

- Alex Clark attended a meeting of the North Carolina State University Hofmann Forest Technical Committee held in Raleigh, NC to develop forest management plans for the Hofmann Forest. He provided advice on the effects of forest management on wood properties.

- On April 16, Ken Outcalt and Joe O'Brien traveled to Solon Dixon Experimental Forest in Alabama to test an infrared thermographic camera. Andy Beck of Flir, Inc., demonstrated the state-of-the-art instrument on a prescribed fire where a variety of other fire measurement techniques were employed. The camera remotely senses temperature using longwave infrared radiation, which can "see" through smoke. The camera records a digital image with precise temperature measurements in each of over 10,000 pixels and takes both still and video images. The preliminary test showed that current standard methods underestimate fire temperatures by as much as 300C. Ken and Joe plan to use the instrument to investigate the effects of different prescribed firing techniques on fire intensity and the generation of lethal temperatures in different tree organs.



Cones of Table Mountain Pine remain closed until exposed to heat. After a fire, they open and drop seed, which will germinate this spring.



Demonstration of infrared camera capturing temperature data from prescribed burn on Solon Dixon Center, Alabama.

Check out our Website at
 FORESTRY SCIENCES LABORATORY
<http://www.srs.fs.fed.us/disturbance>
 SOUTHERN RESEARCH STATION
 Also new presentations will be posted on the smoke management website:
<http://www.srs.fs.fed.us/smoke>

Meetings / Reports :

- Unit scientists interested in soils-related research met in Athens. Stanturf, DiCosty, and Callaham presented updates of current research, capability, and future interests. Opportunities for collaboration were highlighted: fire surrogates, fire/herbicide, root capacity damage in longleaf, unfertilized site prep studies in loblolly pine, Table Mountain Pine response to fire, smoldering combustion, chronosequences in restored shortleaf-bluestem and bottomland hardwoods, long-term prescribed fire plots and new season of burn treatments, urbanization and landscape carbon budgets, and methods development for studying black carbon (charcoal and soot). The group agreed to pursue funding for a planned wildfire/prescribed fire comparison, and to provide soils content for the fire hypertext.

- The draft Land and Resource Management Plans for the Alabama National Forests, Chattahoochee-Oconee, Cherokee, Jefferson, and Sumter National Forests are available, and public meetings are being held. John Moore, Brender Demonstration Forest Manager, represented the unit at a meeting on the Oconee plan, held at Rock Eagle. Plans are available for viewing at <http://www.southernregion.fs.fed.us/planning/sap/default.shtm>.

- Ken Outcalt and Mac Callaham attended the Fire and Fire Surrogates (FFS) Soils Discipline Meeting in St. Louis, MO, April 10-11. Soil researchers from the FFS sites around the country discussed technical problems, analytical and sampling methods, and data analysis.

- On April 15, Ken Outcalt and Joe O'Brien participated in a prescribed burn on the Fire and Fire Surrogate Study at the Solon Dixon Forestry and Education Center near Andalusia, AL. The prescribed burn was conducted on a unit treated with herbicide last fall. The dead standing shrubs contributed to the fuel load and produced fairly intense burns. Staff of Solon Dixon Center under the direction of Dale Pancake conducted the burn. Other project participants included Deb Kennard and David Jones.

- Scott Goodrick represented the Southern High Resolution Modeling Consortium at the Fire Behavior Research Caucus at the Missoula Fire Lab to define and chart the future of core fire behavior research.

- Boyd Edwards attended the Habitat Improvement Stewardship Pilot Business Plan meeting at Oconee Ranger District. The plan will serve to improve the habitat on the forest for the Red Cockaded Woodpecker and Bachman's Sparrow. The plan allows for basal area reduction by commercially thinning selected stands to a 50-70 basal area with a target of 60 basal area. In conjunction with the project there will be timber stand improvement practices, a reduction of undesirable vegetation and noxious weeds by hand and mechanical means, and possible soil and water projects.

- Ken Outcalt and Scott Goodrick participated in a review panel of proposals for the Joint Fire Science Program in Atlanta, GA, April 22-24. The panel evaluated 40 potential proposals vying for funding in this year's round. This was the final set of panels to evaluate the 260 proposals competing for approximately \$10 million. The board



Growing season prescribed burn of longleaf pine stand on Solon Dixon Center, Alabama that was previously sprayed with herbicide. This is part of the Fire and Fire Surrogate Study being conducted in Cooperation with Auburn University.

should be meeting shortly to make final decisions with announcements of successful applicants by June.

Visitors :

- Palle Madsen, Senior Research Scientist with the Danish Forest and Landscape Research Institute in Vejle, Denmark, visited John Stanturf in Athens. With Lynne Breland, they worked intensively on the book they are editing from the IUFRO conference held a year ago in Denmark. Entitled "Restoration of Temperate and Boreal Forests," it will be published by CRC Press/Lewis Publishers. The 35 chapters include case studies of forest restoration from North and South America, Europe, and Asia.

- John Blake, Research Manager at the Savannah River Forest Station, visited Stanturf and discussed the potential for increasing collaborative research on fire ecology.

- Emily Carter, Research Soil Scientist with the forest operations unit in Auburn (SRS-4703), visited Ralph DiCosty and John Stanturf to discuss collaborative research on soil quality. It was agreed that Carter would look at soil physical properties in the multi-site stand dynamics study in the Mississippi Delta that will be sampled this summer.

Personnel News :

- A Fire Technology Transfer Specialist has been hired! Richard (Rick) Reitz has accepted the position and will report to Athens June 15. Rick is currently Regional Fire Prevention and Wildland Urban Interface Manager with Region 3 in Albuquerque, NM. He received a BS in Recreation Resource Management, Oregon State University; MS in Education and Curriculum, University of Oregon, and an MFR in Silviculture from the University of Washington. Rick has over 30 years' experience with the Forest Service and is the current Chair of the Society of American Foresters Fire Working Group.
- Andrea Leach is a new student hire; Andrea will assist Ralph DiCosty and Corey Babb in the Soil and Plant Analysis Lab and conduct a plant diversity study with John Stanturf.
- Jason O'Shell and Eric Neiswanger, unit staff at the Myakka River State Park site in Florida, served on the recovery team for the Columbia Shuttle. They spent 19 days in Corsicana, Texas, amid cow pastures and thickets of briars, honey locust, and honey mesquite. The search protocol had the recovery crews walking about 10 feet apart in straight line, searching every inch of ground for pieces as small as a quarter. Eric found a full tile on the first day, a significant piece. Each tile was numbered and few intact tiles were found. Jason recovered 8 pieces. Both Eric and Jason felt they participated in an historic event and that it was important to bring the shuttle back to NASA and give the families of the crew closure. They lived under Spartan conditions but made some good friends and met people from Oregon and Montana, including Forest Service employees and Native American fire crews. (see picture on page7)

- Corey Babb and Joe O'Brien participated in the restoration of a historic African-American graveyard in Monroe, GA on April 26. After hearing Rich Rusk of the Moore's Ford Memorial Committee speak at the unit, they became interested in participating in the organization's civil rights activities. Along with thirty other volunteers, they cleared brush and small trees and installed memorials on dozens of unmarked graves. For their efforts, they were named honorary lifetime members of the committee.
- Lynne Breland, Editorial Assistant, served as a Hostess at "The Elms" during Spring Pilgrimage in Natchez, MS. Natchez is the oldest settlement on the Mississippi River and has over 50 antebellum homes open for tour during its Spring and Fall Pilgrimages, which began in 1932. Each home has hostesses (dressed in period costume) who greet visitors, show the homes and explain the history of the furnishings, family memorabilia and structures on the property. The Elms was built in 1804.



Lynne Breland at "The Elms" during Spring Pilgrimage in Natchez, MS.

- Joe McConnell, a GS=4 Forestry Technician at the Solon Dixon Center will be leaving our team. He has found a better paying job in the business sector and has resigned effective April 18. He has been a valuable employee and well liked colleague. We wish him the best in his future endeavors.
- Brook T. Stewart, a forestry graduate student at the University of Georgia resigned his position as a temporary part time forestry technician to work full time on his master's degree. The RWU hired Fredrick B. Pounders, an under graduate in forestry at the University of Georgia to fill the vacated position. Brad will work with the Wood Quality Team.
- The certificate of eligibles for the Administrative Assistant position in Athens (vice Gwen Jones) should be available in early May.

Budget :

- The unit received its National Fire Plan budget for FY 2003. Funding was slashed by 30%; this level of funding will seriously impact the unit's fire research.
- Yong Liu submitted two proposals to NASA as a Co-Principle Investigator with George Mason University and other Forest Service units. One proposal explores the capacity of MODIS data in application to forest fires, especially in estimating fuel moisture using MODIS vegetation and land surface temperature measurements, and the other is aimed at creating a next generation seasonal fire danger index using climatic trends and MODIS/AVHRR fuel moisture.

News from around the Region :

- Gregory Nowacki, Regional Ecologist & Acting Regional Soil Scientist, USFS Eastern Region (R9) has been tasked to form an Eastern Region Forest Health Team. The team will facilitate integration and accomplishments to improve forest health in the Region. Team members will represent an array of resource disciplines within the branches of the Forest Service. They will employ the National Ecological Hierarchy to subdivide the East into coarse-scaled units. Within these large-scaled units, they will describe the ecological development and characteristics of these ecosystems, including how component forests historically maintained themselves. This would form the context for addressing “forest health.” Departures from historical conditions (due to changes in disturbance regimes and concomitant effects of Euro-American land use and alterations) might explain, to a certain degree, present-day “unhealthy” conditions where they exist. Nowacki wants to work with the Southern Region to cooperatively assess “forest health” at an eco-regional level for the entire eastern U.S.

- High elevation heath balds are found in the Southern Appalachian Mountains and their origin has long been a puzzle. These distinctive shrublands occur on sharp ridges, steep slopes, and other rough terrain. There are at least 300 balds in the Great Smoky Mountains National Park, some more than ten acres. All are nearly impenetrable thickets dominated by Catawba rhododendron, Mountain Laurel, blueberries, and more unusual shrubs like Mountain Fetterbush (*Pieris floribunda*) and Sand Myrtle (*Leiophyllum buxifolium*). Another surprising feature is deep accumulations

of peat in balds at mid elevations in the Park. NRCS Soil Scientist Anthony Khiel recently determined that some accumulations of peat and the black organic layer that underlay it were over 1 meter deep. This was a surprise, as it was expected that soils would be very thin on these steep slopes. Additional work is underway by Rob Young of Western Carolina University to date the material using accelerator radiocarbon dating.

- Fred Allen, Director of the Georgia Forestry Commission and State Forester of Georgia, has announced he plans to retire June 1, 2003.
- An Environmental Assessment (EA) on continued operation of the Bent Creek Experimental Forest, Buncombe County, North Carolina, for silvicultural demonstrations and research may be viewed at <http://www.cs.unca.edu/nfsnc/>
- The National Council on Science for Sustainable Forestry and the National Forest Foundation co-sponsored a workshop April 22-23 in Alexandria, VA on linking their funded research projects to practitioners’ needs. Practitioners provided questions that current researchers could use to focus their projects and topic areas or needs that

projects in the future could fill. Types of information used/needed and means of communication were key areas of discussion. NCSSF will post a summary of the workshop findings at <http://www.ncssf.org>.

- Terrestrial Plant Invasions in the Temperate South Workshop, June 4-5, Greenville, SC will discuss multi-resource and social problems of invasive plants, public- and private-sector responsibilities, identification, monitoring, control, restoration, and information networks. Full details of the workshop are available at <http://www.clemson.edu/extfor/changes/IS%20web%20brochure.htm>.
- Smurfit-Stone Container Corp. plans to sell about 81,000 acres of timberland in Alabama and Tennessee to Stevenson Tract Acquisition Co. LLC for \$37.5 million. The paperboard and packaging manufacturer said Archer Woodlands Group LLC, a private firm in New York and Coastal Lumber Co., a private concern based in North Carolina, own Stevenson Tract Acquisition Co. (Dow Jones). Smurfit-Stone acquired the assets that it is now selling from MeadWestvaco Corp. (BUSINESS WIRE)

GPRA Accomplishments:

Category	FY 2002	FY 2003
	Total	To Date
Number of Refereed Journal Publications	9	9
Number of Non-Refereed Publications (include abstracts)	53	13
Number of Publications (refereed + non-refereed)	62	22
Number of Tours	46	54
Number of Short Courses/Training	8	8
Number of Invited Presentations to Scientific Organizations	6	7
Number of Invited Presentations to Lay Organizations	25	37
Volunteer Presentations to Scientific Organizations (non-GPRA)	28	19
Number of Technology Transfer Activities (other than above)	172	105
Outside Funding	\$3,227,500	\$1,805,563

- Potlatch Corporation and Bradley Lumber Company of Warren, Arkansas, have announced an agreement in principle for Bradley's purchase of approximately 15,200 acres of Potlatch hardwood bottomland in Arkansas. The sale, which is subject to approval by the Potlatch Board of Directors, is expected to close in the second quarter of 2003. Potlatch said the sale is consistent with plans to align its Arkansas operations with available raw material by exiting the hardwood lumber business and expanding the company's southern yellow pine production. Potlatch announced closure of the Bradley hardwood mill in July and subsequently sold the mill in September 2002 to Dr. David Chambers, president of Bradley Lumber Co. (BUSINESS WIRE).

- California has among the highest requirements in the world for private forestland management because of extensive regulation and independent programs that promote sustainable forest management, according to a new study by Cal Poly State University-San Luis Obispo. But the authors of the study, Christopher A. Dicus, assistant professor of natural resources management (Ph.D. LSU—Ed.), and Kenneth Delfino, executive director of Cal Poly's Urban Forest Ecosystems Institute, caution that state regulations may not give local foresters the flexibility they need to manage forestland for long-term sustainability and the benefit of watershed protection and wildlife. "California forestlands are some of the most legally protected privately owned forests in the world. Multiple layers of federal, state, county and local regulations ensure that timber will be managed in a sustainable manner," the study's authors said. That regulation, however, can result in a micro

managing that may not be best for the forests and the environment, they said. "Classical forest management is based on adapting a variety of options to each on-the-ground problem," the authors said. Although some exceptions are provided, "the state regulatory process forces a one-size-fits-all approach that cannot accommodate all the variables of California's landscapes," they said. Further, the ever increasing cost to forest landowners for complying with the Forest Practice Rules could drive some to utilize their land for purposes other than the growing and harvesting of timber," the authors said. "Conversion of lands to alternative activities such as subdivisions cause permanent environmental changes that are far more drastic than forestry activities." (BUSINESS WIRE)

- The Trust for Public Land (TPL) and Sierra Pacific Industries (SPI) announced the sale of more than 1,900 acres in the Sierra Nevada along the North Fork American River corridor and along the Pacific Crest Trail at Barker Pass. TPL conveyed both properties to the Tahoe National Forest for permanent public stewardship. The 1,280-acre North Fork American River property, including key land in nearby Duncan Canyon valued at \$1.99 million, and the 628-acre Barker Pass property valued at \$875,000, was purchased using appropriations from federal Land and Water Conservation Fund. The purchases represent the third and fourth conservation sales under the multi-year agreement signed between SPI and TPL in 2001 to buy and protect more than 35,000 acres from SPI along some of the Sierra Nevada's most pristine and scenic rivers. (BUSINESS WIRE).

- Natural and wood fiber plastic composites (WPC) continued to grow in

North America, with demand reaching 1.3 billion pounds, valued at \$700 million in 2002 according to a report by Principia Partners. This represents a 26% annual growth since 1998. Only a moderate slowdown is seen in the future as these composites continue their market penetration in building product, infrastructure, transportation, and consumer/industrial applications. Building products, specifically decking and railings for both residential and commercial installations, are the major market for WPCs accounting for almost two-thirds of North American demand in 2002. These applications are expected to continue to dominate through the end of the decade with growth predicted at 16% per year as WPCs capture market share from pressure-treated and specialty wood materials. However, several other new and emerging applications will also experience growth through the end of the decade, including shingles, siding, window profiles, and patio furniture. WPC shingles may be attractive to homeowners in areas prone to high winds, hail, and/or wild fires. (BUSINESS WIRE).



Recovery team for the Columbia Shuttle.

Publications :

FY 2003 (* denotes new publication this month)

- Escalante Fernandez, R. Monreal Rangel, S., **Stanturf, J.**, Arseneau, C., Nantel, P. 2002. Forest plantations in North America. Report to the North American Forestry Commission. 26 pp.
- Glitzenstein, J.S., Streng, D.R., and **Wade, D.D.** 2003. Fire frequency effects on longleaf pine (*Pinus palustris* P. Miller) vegetation in South Carolina and Northeast Florida, USA. *Natural Areas Journal* 23:22-37.
- Hanula, J.L., **Wade, D.D.** 2003. Influence of long-term dormant-season burning and fire exclusion on ground-dwelling arthropod populations in longleaf pine flatwoods ecosystems. *Forest Ecology and Management* 175(1-3): 163-184.
- Kennard, D.K., Outcalt, K.**, and M. Carrington. 2002. *Serenoa repens* (Bartr.) Small saw palmetto. In: J.K. Francis (ed.) Wildland shrubs of the United States and its territories. Gen. Tech. Rep. IITF-WB-1. Published on website www.fs.fed.us/global/iitf/wildland_shrubs.htm. 3 p.
- Lockaby, B.G., Keeland, B.D., **Stanturf, J.A.**, Rice, M.D., Hodges, G., Governo, R.M. 2002. Arthropods in decomposing wood of the Atchafalaya River Basin. *Southeastern Naturalist* 1(4): 339-352.
- *Miller, S.R. and **Wade, D.** 2003. Re-introducing fire at the urban/wild-land interface: planning for success. *Forestry* 76(2): 253-260.
- Moody, J.M.** 2002. Fire and alternative fuel treatment effect on soil Nitrogen: A case study of Myakka River State Park. M.Sc. thesis, FL A&M Univ., Tall., FL. 52 p.
- Rideout, S.** and Oswald, B.P. 2002. Effects of prescribed burning on vegetation and fuel loading in three east Texas state parks. *Texas J. Science* 54(3): 211-226.
- ***Rideout, S.**, Oswald, B.P., and Legg, M.H. 2003. Ecological, political and social challenges of prescribed fire restoration in east Texas pineywoods ecosystems: a case study. *Forestry* 76(2): 261-269.
- Stanturf, J.A.**, Kellison, R.C., Broerman, F.S., and Jones, S.B. 2003. Productivity of southern pine plantations: Where are we and how did we get here? *Journal of Forestry* 101(3): 26-31.
- Stanturf J.A.** and Madsen P. 2002. Restoration concepts for temperate and boreal forests of North America and Western Europe. In: *Forest Ecosystems: Ecology, Conservation and Sustainable Management* (eds. Jiang Z., Centritto M., Liu S. & Chiatante D.). *Plant Biosystems* 136, 143-158.
- Stanturf, J.A., Wade, D.D., Waldrop, T.A., Kennard, D.K., and Achtemeier, G.L.** 2002. Fire in Southern Forest Landscapes. P. 607-630 (Chapter 25) In Wear, D.M. and Greis, J.G., editors, Southern Forest Resource Assessment. Gen Tech Rep. SRS-53. Asheville, NC: U.S. Department of Agriculture, Forest Service, Southern Research Station.



Upcoming Events :

2003		Jul 20-24	10 th North American Forest Soils Conference, Sault Ste. Marie, Ontario, Canada; Stanturf, Callaham to attend and present posters. http://www.fs.fed.us/forestsoilsconference .
May 11-14	Annual meeting, Soil Ecology Society, "Invasive Species and Soil Ecology," Palm Springs, CA; Callaham to attend and present paper http://www.ccb.ucr.edu/SES/SES2003meeting.html	Aug 11-14	IUFRO Working Group for Seed Physiology and Technology conference to be held at the Georgia Center, Athens, GA.
May 11-16	Fifth International Conference on Science and the Management of Protected Areas (SAMPAA V), University of Victoria, Victoria, British Columbia, Canada. The theme will be Making Ecosystem Management Work: Connecting Managers and Researchers. For more information see http://www.sampaa.org	Sep 7-10	Council on Forest Engineering annual meeting, Bar Harbor, ME; http://www.forest-resources.umaine.edu/nercofe/cofe2003.htm
May 12-15	2 nd Forest Engineering Conference, hosted by SkogForsk (The Forestry Research Institute of Sweden), Växjö, Sweden; Stanturf to present poster. http://www.skogforsk.se/fec	Sep 16-18	IUFRO Conference on 'Strong Winds and Trees: ecology and management, sponsored by WP 8.08.02 and University of Karlsruhe, Germany; re-scheduled from Aug 17-24 in Zurich; http://www.ifh.uni-Karlsruhe.de/ifh/science/aerodyn/windconf.htm .
*May 20	Wood Quality Consortium annual meeting in Columbus, GA. Alex Clark, will attend and make a presentation.	Sep 18	Agroforestry and Wildlife Field Day, Griffin, GA
*May 20-22	Wildland Urban Interface Prevention Exchange workshop, Birmingham, AL; Kennard and Fowler to attend, Kennard to present.	Sep 21-28	12 th World Forestry Congress, Quebec City, Canada; http://www.wfc2003.org ; Stanturf to attend.
May 22-24	International Conference on Economics of Sustainable Forest Management, to be held at the University of Toronto, in Toronto, Canada.	Sep 28-Oct 2	The Question Of Conversion of Coniferous Forests meeting, Freiburg, Germany; contact for further information: instww@uni-freiburg.de
*Jun 4-5	Terrestrial Plant Invasions In The Temperate South Workshop, Greenville, SC. http://www.clemson.edu/extfor/changes/IS%20web%20brochure.htm	October	Annual Entomological Society of America Symposium in Cincinnati, OH. Callaham invited to give presentation.
Jun 16-20	Fourth Annual North American Forest Ecology Workshop, Oregon State University in Corvallis, OR. Abstracts due Jan 17, 2003. http://outreach.cof.orst.edu/nafew/	Oct 2-3	Enhancing the Southern Appalachian Forest Resource symposium, Kanuga Conference Center, Hendersonville, NC http://www.ces.ncsu.edu/nreos/forest/feop/symposium
*Jun 17-18	AF&PA-CORE 2003 meeting, Forest Products Laboratory, Madison, WI. Alex Clark will attend and make a presentation	Oct 4-8	3rd International Wildland Fire Conference, sponsored by the North American Forest Commission's Fire Management Working Group, Sydney, Australia.
Jun 22-25	57th Annual Meeting of the Forest Products Society, Doubletree Hotel, Bellevue, WA. Alex Clark will make presentation.	Oct 7-9	Management Team Meeting, SRS
Jun 28-Jul 2	Society for Conservation Biology, Duluth, Minnesota. http://www.conservationbiology.org/2003	*Oct 14-21	International Conference on ECO-RESTORATION, Dehradun and New Delhi, INDIA.
		Oct 25-29	Society American Foresters Annual Meeting, Buffalo, NY
		Nov 2-6	Soil Science Society of America annual meeting, Denver, CO

- *Nov 3-7** Invasive Plants in Natural and Managed Systems: Linking Science and Management and 7th International Conference on the Ecology and Management of Alien Plant Invasions, Ft. Lauderdale, FL
<http://esa.org/ipinams-mapi7/abstractcall.htm>
- *Nov 4-6** SAMAB Fall Conference, Asheville, NC. <http://samab.org/Conf/Conf03/conf03.html>
- *Nov 16-19** National Fire Risk Assessment Conference, Portland, OR.
- Nov 16-20** Second International Congress On Wildland Fire Ecology And Fire Management, in conjunction with the Fifth Symposium on Fire and Forest Meteorology
- Nov 19-22** Society for Ecological Restoration 15th International Conference, Austin, TX (note new dates).
<http://www.ser.org>
- Nov 27-30** IEA Short Rotation Bioenergy (Task 30) meeting, New Zealand and Australia
- 2004**
- Mar 2 – 4** Southern Research Station All Scientist Meeting
- Jun 21-25** IUFRO Division 1-Silviculture conference, CIRAD-Foret in Montpellier, France
- Jun 27-Jul 2** First Agroforestry World Congress, Orlando, FL
- Aug** Society for Ecological Restoration 16th International Conference, Victoria, British Columbia
- Sep 3-7** European Forest Institute (EFI) annual meeting, Bangor, Wales (UK).
- Oct 31-Nov 4** Soil Science Society of America annual meeting, Seattle, WA
- *Nov 17-25** IUCN Third World Conservation Congress (WCC), Bangkok.

- Nov** Short Rotation Woody Crops Operations Working Group Biennial Meeting, Aiken, SC; dates TBA
- 2005**
- Aug 8-13** IUFRO World Congress, Brisbane, Australia; Stanturf to attend; <http://www.iufro2005.com>
- Aug or Sep** Society for Ecological Restoration 17th International Conference, Zaragoza, Spain
- Nov 6-10** Soil Science Society of America annual meeting, Salt Lake City, UT



SRS-4104 Project Leader's Report

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