

Project Leader's Report

June - 2004



DMISE
DISTURBANCE AND MANAGEMENT
OF SOUTHERN ECOSYSTEMS

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Technology Transfer :

- Ken Outcalt presented his Fire Regime Condition Class models for review at a workshop at Tall Timbers Fire Ecology Lab in Tallahassee. He had attended a workshop in March to begin development of FRCC models specific to conditions in the South.
- Gary Achtemeier installed PB-Piedmont 4.0 on the South Carolina Forestry Commission computer and trained Harry Blount, GIS Specialist with the SCFC, to install the model on four other SCFC computers. They also planned a training session for 25 SCFC foresters and other interested parties on how to use PB-Piedmont. The training session is planned for July 1.
- Mac Callahan provided technical assistance to Ching-yu Huang and Chris Hayes, both students at the University

of Georgia. They are working on a project at Coweeta that is focused on interactions between native earthworm fauna and introduced earthworm species.

- Scott Goodrick presented a new weather analysis technique at the National Fire Program Analysis Symposium in Portland Oregon that provides daily weather information for the initial analysis period of 1981-2003. This new analysis method creates a 5 kilometer grid of virtual NFDRS (National Fire Danger Rating System) reporting stations across the country, allowing fire planners greater flexibility in relating fire activity to weather through tools such as Fire Family Plus. This weather dataset is expected to be available for use by fire managers by October 1, 2004.

Outreach Activities:

Four organized groups totaling 44 people visited the Brender Forest during June. Groups included a forester/logger education workshop studying logging and road construction cost analysis, the Jarrell Plantation Junior Ranger Group, and two landowner groups looking at Mountain Longleaf, the arboretum and other forest management demonstrations.

Approximately 55 visitors came by the office at the Brender Forest for information and 54 people signed the register at the Hitchiti Interpretive Trail.



- Joe O'Brien hosted a workshop on preparing a template for Best Management Practices publications that the Joint Fire Science Program is seeking to develop for fire-dependent ecosystems in the US. The goal of the JFSP is to publish BMPs for hazardous fuel management. If accepted by the JFSP Board, the template will be required for upcoming proposals and for the BMP documents to be prepared by the workshop attendees on loblolly pine, pine rocklands and flatwoods, and Black Hills ponderosa pine. The meeting, held at Flinchum's Phoenix on the Whitehall Forest near Athens, was attended by Lee Barkow, Director of BLM Science and Technology Center (representing the JFSP board); Wayne Shepperd, scientist at the Rocky Mountain Research Station in Fort Collins, Colorado; Michael Wimberly, Professor of Landscape Ecology at the University of Georgia; and unit scientists Cynthia Fowler, Deb Kennard, Joe O'Brien, Ken Outcalt, and John Stanturf.



- Joe O'Brien presented an invited paper "Fire in Caribbean Island Pine Forests" at the 12th annual Caribbean Foresters Meeting, San Juan, Puerto Rico. Foresters from 13 Caribbean nations attended the meeting, which was hosted by the US Forest Service International Institute for Tropical Forestry and the Puerto Rican Conservation Foundation. A representative from each country reported on wildland fire issues and some common themes emerged. Countries without native pine forests are plagued with destructive fires entering dry forests, with fires being carried by fuels derived from introduced fire-tolerant grasses. The nations with native pines identified as their primary concerns a lack of information on basic fire ecology, fires leaving pine stands and entering fire-sensitive forests, and changes in fire regimes. Most countries lacked even a basic infrastructure for wildland fire management, although Puerto Rico has begun to train and equip structure firefighters for wildland firefighting. The UN FAO is interested in developing a link between SRS-4104 and the Trinidadian Forest Service to provide technical assistance for analyzing accumulated fire data. The meeting included a field trip to Guanica Forest Reserve and Caribbean National Forest.

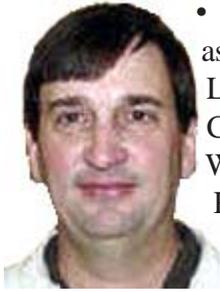
- John Stanturf presented two papers at the IUFRO Division 1 Silviculture Conference held at La Grande Motte, near Montpellier, France. The two papers ("Silviculture for restoration of degraded temperate and boreal forests" and "Restoring bottomland hardwood forests: A comparison of four techniques") reflect

his involvement in IUFRO as Working Party Leader of 1.17.02, Restoration of Boreal and Temperate Forests. He also moderated the session on Forest Structure and Biodiversity. Selected papers will be submitted for a special issue of the journals *Forest Ecology & Management* and *Bois et Forêts des Tropiques*. The organizers intend to have these papers published prior to the IUFRO World Congress in Brisbane in August 2005. Although the meeting was limited to about 50, attendees represented all major forest regions in the Americas, Africa, Europe, Asia, and Australia.

- Cynthia Fowler presented a paper, "The dynamics of agroforestry in the contexts of multiple, overlapping market and tenurial systems" at the 9th Congress of the International Society of Ethnobiology, held at University of Kent in Canterbury, England. Her talk was in the session "Cultured Trees: Transformations in Agroforestry Systems."

- Alex Clark presented a paper "Juvenile/mature wood transition in loblolly pine as defined by proportion of latewood, specific gravity and microfibril angle" at the Forest Products Society, 58th Annual Meeting, held in Grand Rapids, MI.





- Tom Waldrop is assisting Carl Trettin and Lindsay White of the SRS Center for Forested Wetlands Ecosystems Research (SRS-4103 Charleston) with a new research project on the

long-term fire study known as the Santee Fire Plot Study. The original study began in 1946 and was continued through September 1989 when Hurricane Hugo destroyed almost all of the overstory trees. Until that time, annual and periodic prescribed burns had been conducted on the Santee Fire Plots for 43 years. Much of our knowledge of long-term fire effects in coastal plain pine forests was developed on these plots. Waldrop was one of the last researchers to actively measure changes in the vegetation on these plots. From preliminary measurements, Trettin and White have found remarkable differences in tree growth as a lasting effect of the different fire regimes. Net primary production on unburned control plots was approximately twice that measured on plots burned annually in summer. The new project will establish complete biomass and nutrient budgets in plots burned by each of five burning regimes. During the meeting, Waldrop provided an historical overview of research on the Santee Fire Plots and introduced Trettin and White to the data archives for this long-term study. Waldrop will provide additional data collected prior to the hurricane on biomass and nutrient budgets.

- Tom Waldrop and Aaron Stottlemeyer met with Chris Revels of the King's Mountain National Military Park. The park is cooperating with Tom and Aaron on a new study funded by the Joint Fire Science Program to examine management options in the



face of epidemic Southern Pine Beetle attacks. Because of record levels of beetle kill in the past 3 years, managers with commercial and restoration objectives need information on how prescribed burning or mechanical treatments can be used to reduce the heavy fuels loads. Prescribed burning may not be feasible because of the expected high fire intensities that may damage soils, neighboring trees, or target vegetation. Methods of predicting fire behavior and fuel consumption are unavailable. Mechanical treatments that will reduce fuels are expensive and may not control vegetation that would out-compete planted pines, oak sprouts, or other target vegetation. The King's Mountain National Military Park is one of several locations for the study where treatments will compare winter burning, summer burning, and mechanical fuel reduction. Resulting analyses will provide managers a better understanding of the

tradeoffs between prescribed burning and mechanical fuel reduction in areas with unusually heavy fuel loads.

- Alex Clark will be the featured guest on Timber Talk, the only 30-minute weekly educational forestry radio show in the country. Timber Talk is broadcast on five radio stations in south Arkansas, north Louisiana, and northeast Texas. Alex will discuss how to grow the trees timber purchasers want on August 10th. Past shows can be heard on the internet at <http://www.timbertalk.com>.

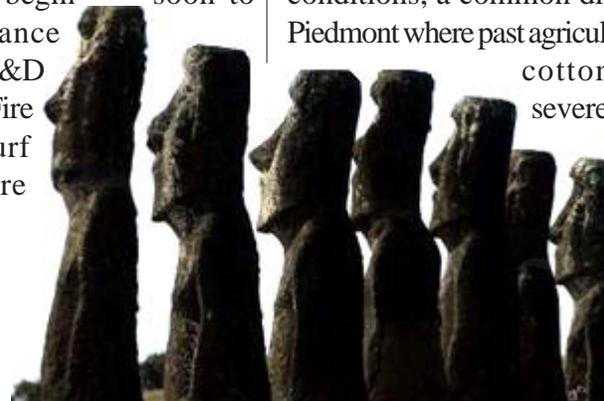


Kings Mountain National Military Park.

Meetings / Reports :

- Scott Goodrick attended a Fire and Fuels Strategic Plan R&D meeting in Rosslyn (WO) in early June. Scott was there as part of the Core Fire Science Caucus, a self-directed group of scientists attending to the physical science side of fire research. The objective of the meeting was to define a process to be used for developing the R&D Fire and Fuels National Strategy. Another planning effort, the Fire Research Logic Model, will begin soon to develop performance measurements for R&D under the National Fire Plan. John Stanturf serves on the Core Team for that effort.

- Ken Outcalt and David Combs met with Bill Nightingale and John Moore to plan upcoming research and management on the Hitchiti Experimental Forest. Bill is also interested in our involvement with hardwood restoration and the experimental forest at Scull Shoals. The Oconee National Forest plans to restore hardwoods on the Forest but is uncertain of the appropriate desired future conditions, a common dilemma in the Piedmont where past agriculture (primarily cotton) caused severe soil erosion.



↓ Visitors

- Ralph DiCosty attended the Energy and Agricultural Carbon Utilization Symposium at the University of Georgia. The key theme was carbon storage in soil with an emphasis on char (black carbon) as a stable form of soil carbon. A group from Indonesia presented results on charcoal application to plantation forests (*Acacia mangium*). Goals of their project were to reduce carbon emissions, mitigate smoke pollution, and improve soil fertility. A Brazilian researcher proposed that slash-and-burn agriculture be replaced with slash-and-char. The carbon budget of the slash-and-char system was attractive, as 40% of the aboveground biomass carbon remains after fire. Black carbon, per current evidence, (1) improves nutrient retention, (2) improves nutrient availability and crop yield (optimal levels are 30-60 g BC per kg soil), and (3) decreases greenhouse gas emissions.

- John Stanturf and Palle Madsen were informed by the organizers of the technical program for the IUFRO World Congress that their proposal for a session had been approved. The session, "Linking research, development, and implementation: Case studies from forest restoration and regeneration," will highlight the importance of cooperation between scientists and practitioners in setting goals, designing research and development strategies to reach the goals, and implementing new findings into practical forest and landscape management. The IUFRO Congress will be held next August in Brisbane, Australia.

- Cynthia Fowler and Rick Reitz discussed scientific and public relations issues on the Piedmont Refuge with Clarke Dirks and Karl Schmidt, including how scientists in the Southern Station might design research projects that directly address the needs of refuge managers.

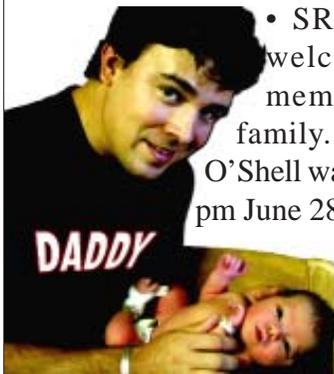
- Former Visiting Scientist Jorge Paladino Corrêa de Lima and wife Helene visited the unit while vacationing in the US. Jorge is Professor, Federal Rural University of Rio de Janeiro (UFRRJ), Rio de Janeiro, Brasil.



Dr. Jorge Paladino and his wife Maria Helena with Dr. Victor Rudolph (center), former Professor and Head of the Forestry Department at Michigan State University. Picture taken at Prof. Rudolph's house in Marietta, GA.

↓ Personnel News :

- Mac Callaham attended the Congressional Briefing Conference in Washington, DC. The event was hosted by the Government Affairs Institute, and attendees were addressed by two Members of the House of Representatives, as well as by folks who influence the FS, including staff members from the Interior and Related Agencies Subcommittee of the House Appropriations Committee, and from the Forests and Forest Health Subcommittee of the Resources Committee.



- SRS 4104 unit welcomes a new member to our family. Olivia Rose O'Shell was born at 5:00 pm June 28 and weighed 8 pounds and 15 ounces; she was 21.5 inches long.

- Dave Cleland, Research Liaison and unit scientist located in Rhinelander, WI, has moved to new offices. Dave's new digs are c/o Wisconsin Department of Natural Resources, 107 Sutliff Avenue, Rhinelander, WI 54501. A new phone is being installed.

- Janet Revell attended Time Management training.

- Cynthia Fowler attended a fire refresher course, held in Gainesville, Georgia and led by R8 employees Tommy Anderson and Tony Rider.



"The most beautiful thing we can experience is the mysterious. It is the source of all true art and all science. He to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, is as good as dead: his eyes are closed."

- Albert Einstein



• Les Groom, Project Leader in Pineville (SRS-4701, Utilization of Southern Forest Resources) received the Markwardt Wood Engineering Award, presented annually

by the Forest Products Society to the author or authors of a technical paper published during the two calendar years prior to the award year in either the Forest Products Journal or Wood and Fiber Science that is judged to be the most outstanding research paper in the field of wood as an engineering material. Groom was first author on a paper dealing with wood fiber properties located within a standing tree. His co-authors were Drs. Steve Shaler (University of Maine) and Laurence Mott (TetraPak, Sweden).

• Several Southern Station employees received 2004 Honor Awards from the Secretary of Agriculture. Some SRS-4104 staff were among those honored in the category of Heroism and Emergency Response for their participation in the Space Shuttle – 107 Columbia Recovery Mission Group of Region 8. Also in this category, John (Jack) Vozzo, seed researcher in SRS-4155 (Starkville), was part of the Afghanistan and Iraq Agriculture Reconstruction Team of the Foreign Agriculture Service. John Parrotta in the Washington Office and head of the Division 1 of IUFRO, was also named for an award for his work on the Ministerial Conference and EXPO on Agricultural Science and Technology, an effort headed by the Foreign Agricultural Service. This award was in the category Enhancing Economic Opportunities for Agricultural Producers. Congratulations to all!

• Forest Service colleague Dr. Kristina Connor is editor of the Seed Physiology and Technology Newsletter of the IUFRO WP 2.09.00. If you would like to receive this quarterly newsletter, contact her at kconnor@fs.fed.us.

• For many years, Louisiana State University (LSU) held an annual LSU Forestry Symposium. This event was generally regarded as a very important venue for state-of-the-art forestry information. Dr. Todd Shupe, Associate Professor, is leading an effort to renew the old symposium with a new name: the Louisiana Forestry Symposium (LFS). The objective of the symposium remains the same: to disseminate high quality information on contemporary forestry issues of particular importance in the U.S. South. The intended audience is professional foresters, land managers, and others involved in natural resource management, regulation, and policy. The 1.5-day meeting will occur on July 19-20, 2005 in Baton Rouge, LA. Contact Dr. Shupe for further information at tshupe@lsu.edu, or by phone at (225) 578-6432.



• Here's a question for fire-folks: How many inches of rain does it take to put out a burning snag? What is your guess- one, two, three, five, or ten? Managers at Great Smoky Mountains National Park have observed that a snag ignited by lightning on June 13 in the Shot Beech Fire was still burning the morning of June 28, after approximately five inches of rain over 15 days fell in the area. The fire is limited to the top of a 24-ft-diameter hemlock tree. Only about 22 feet of the trunk remains; about 10 ft has smoldered away. The snag is on a northerly aspect and has not received much sunlight during the time it has been burning. Fog banks and clouds have been present most of the time the fire has been monitored. If ten feet burned in 15 days, does that mean the snag will burn for another 30? If snags like this can survive repeated rains over such an extended period of time, how many fires could snags like this start under drier and windier conditions? How many snags along the perimeter of fires that started under drier and windier conditions that burned appreciable acreage, would have caught fire only to smolder for weeks throughout repeated rainfall? When things dried out again, how many of THOSE snags would rekindle the fire to burn more acreage? These are important questions in trying to assess what a natural fire regime might be for areas similar to the present park. It seems as if the number of days that fires are present to burn acreage in the Smokies is far greater than just those days on which cloud-to-ground lightning occurs. Keep track of the progress of the snag by accessing the GSMNP newsletter at <http://www.nps.gov/grsm/gsm/site/rmsupdates.html>.

- A nationwide set of maps depicting the wildland urban interface (WUI), based on the 2001 definition of WUI published in the Federal Register, is available. Using geographic information systems, Forest Service and university researchers integrated U.S. Census Bureau housing data and the U.S. Geological Survey National Land Cover Data to map the WUI based on housing density. This is the first nationally consistent, fine-scale representation of the WUI and can assist in mapping and analysis at national, state, and local levels. While this research provides a delineation of the WUI, it does not depict wildland fuel conditions and wildland fire risk or define communities at risk. These maps highlight areas that are a focal point for human-environment conflicts such as invasive species, habitat fragmentation, and biodiversity decline. This project is a collaboration of Forest Service social scientist Susan Stewart in Evanston, Illinois and Volker Radeloff and Roger Hammer from the University of Wisconsin-Madison. The maps are on the web at http://silvis.forest.wisc.edu/projects/WUI_Main.asp

The Regional Haze Rule calls for state and federal agencies to work together to improve visibility in [156 national parks and wilderness areas](#) such as Great Smoky Mountains National Park. The rule requires the states, in coordination with the Environmental Protection Agency, the National Park Service, and other interested parties, to develop and implement air quality protection plans to reduce the pollution that causes visibility impairment. The first State plans for regional haze are due in 2005-2008; five multi-state [regional planning organizations](#) are working together now to develop the technical basis for these plans. The [Visibility Improvement State and Tribal Association of the Southeast \(VISTAS\)](#) is a collaborative effort of state governments, tribal governments, and various federal agencies, including the Forest Service and the National Park Service, established to initiate and coordinate activities associated with the management of regional haze, visibility and other air quality issues in the Southeastern United States. Member States and Tribes include: the States of Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia and the Eastern Band of the Cherokee Indians. For more information on VISTAS, visit <http://www.vistas-sesarm.org/>. (Source: Great Smoky Mountains NP Resource Management and Science Insider)

- In related news, a 6-month study of carbon sources in regional haze was started at Lookout Rock in Great Smoky Mountains National Park. Weekly ambient carbon particulate matter samples will be analyzed for Carbon 14. Carbon can make up 40% of the fine mass and contribute 20% of the haze at the park and the ratio of carbon isotopes can provide clues as to the origin of carbon, whether biogenic or anthropogenic. As the park continues to work with states and EPA to achieve the Regional Haze Rule (and the PM2.5 public health standard) of natural conditions by the year 2064, it will be important to understand the chemical composition and sources of carbon in airborne particulate matter. Determining the exact origin of all of the carbon is still an unanswered scientific question. There are 5 other sites participating in this study that probably have different source impacts of the carbon including Bondville, IL, Proctor-Maple, VT, Puget Sound, WA, Mount Rainier, WA, and Washington, D.C. Some of the possible carbon sources include fresh mobile source urban emissions, aged urban carbon, secondary organics from trees, agriculture and forestry burning, and secondary organics from petrochemical plants. (Source: Great Smoky Mountains NP Resource Management and Science Insider)



Great Smoky Mountains National Park.

- According to the American Forest & Paper Association (AF&PA), more than half (50.3 percent) of the paper consumed in the United States during 2003, or 49.3 million tons, was recovered for recycling. This recovery level represents an increase of 69 percent since 1990, when only 33.5 percent of

News from around the Region :

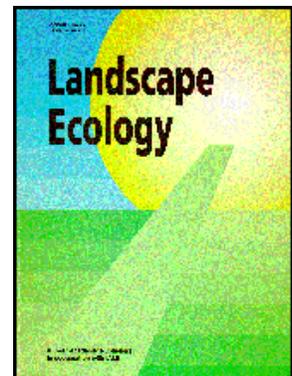
the paper consumed in the United States was recycled. Currently, Americans recover approximately 339 pounds of paper for every person in the United States, up from 233 pounds per person in 1990. In 2003, recovery of Old Corrugated Containers (OCC) rose to a record high of 75.8 percent, recovery of Old Newspapers (ONP) rose to a record high of 73 percent, and recovery of office papers rose to a record high of 48.3 percent. More than 37 percent of the raw material used to make new paper products comes from recycled paper. Currently more paper is recovered for recycling than is placed in landfills. (Source: PRNewswire)

- Ever wondered how common is common sense? Forty-three percent of Americans report they have “a lot more” common sense than most people, a survey by SCOTT® Tissue and Towels reveals. And, underscoring humorist Will Rogers’ observation that “common sense ain’t common,” only seven percent actually have Common Sense Perception (CSP), the most exceptional kind of common sense. Meanwhile, 74 percent of Americans believe they have above-average practical judgment. You can gauge your own common sense level at the website <http://www.ScottCommonSense.com> through a quiz developed in partnership with Professor Robert J. Sternberg, IBM Professor of Psychology and Education, Yale University, who has studied common sense for more than 20 years. (Source: PRNewswire)

- Controversial Danish environmentalist Bjørn Lomborg squared off against Klaus Töpfer, Executive Director of the United Nations Environment Programme (UNEP) over the issue of climate change at a public debate at the University of Mainz, Germany. Lomborg, author of “The Skeptical Environmentalist,” has been criticized for alleging that climate change impacts have been exaggerated. Lomborg argues that money spent on combating climate change will be better used to address more immediate human needs, such as HIV/AIDS or hunger. Töpfer stated that

“numbers and economics” alone should not determine the need for action to address climate change, and opposed Lomborg’s argument that people in the developing world are not concerned with the issue. Lomborg contends that on the whole the Earth is getting cleaner and humankind healthier and richer. According to Töpfer, “Things are not better in the last hundred years, they are worse.” (Source: IISD Linkages, http://www.iisd.ca/media/climate_atmosphere.htm. Links to further information <http://www.reuters.com/newsArticle.jhtml?type=scienceNews&storyID=5476097> http://www.pollutioncontrolhq.com/article_063880.html http://www.unwire.org/UNWire/20040622/449_25125.asp <http://www.guardian.co.uk/climatechange/story/0,12374,1245140,00.html>.

- The Danida Forest Seed Centre has now merged into the new Danish Centre for Forest, Landscape and Planning. The Centre’s international program includes environmental activities in the developing world and in Eastern Europe. A copy of their newsletter is available at <http://www.dfsc.dk> or contact Melita F. Jorgensen at mefj@kvl.dk (Forest and Landscape Denmark, Hoersholm Kongevej 11, DK-2970 Hoersholm, Denmark) to be put on the mailing list.



GPRAGPRAGPRAGPRA Accomplishments:

Category	FY 2003	FY 2004
	Total	To Date
Number of Refereed Journal Publications	24	18
Number of Non-Refereed Publications (include abstracts)	50	66
Number of Publications (refereed + non-refereed)	74	84
Number of Tours	66	39
Number of Short Courses/Training	8	19
Number of Invited Presentations to Scientific Organizations	8	11
Number of Invited Presentations to Lay Organizations	45	29
Volunteer Presentations to Scientific Organizations (non-GPRA)	27	40
Number of Technology Transfer Activities (other than above)	135	99
Outside Funding	\$1,955,455	\$2,564,574

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Upcoming Events :

2004

Jul 12-15 North American Forest Biology Workshop, Managing forest resources in the 21st century: An Integrated Approach; Michigan Technological University Houghton, MI <http://www.forestbiology.org/>

Jul 25-31 7th INTECOL International Wetlands Conference, Utrecht, The Netherlands. <http://www.bio.uu.nl/INTECOL>

Aug 1-8 Ecological Society America annual meeting, Portland, OR; Callahan, Outcalt, and O'Brien to attend and present

Aug 15-20 Large-Scale Experiments for Sustainable Forestry: Balancing Ecosystem Values; International IUFRO Workshop, Portland, OR. <http://outreach.cof.orst.edu/ecosystem>

Upcoming Events :

- Aug 23-27** Society Ecological Restoration International annual meeting, Victoria, BC; <http://www.ser.org/meeting.php?pg=call4abstracts2004>
- Aug 29-Sep 10** Soil Ecology Colloquium, Rouen, France; Callahan to attend and present invited paper; <http://www.bondy.ird.fr/biosol/evenements/colloque-rouen/index.html>
- Sep 1-2** Forest IT 2004 Exhibition and Congress, Jyväskylä, Finland; <http://www.ForestIT.net>
- Sep 3-7** European Forest Institute (EFI) Annual Meeting, Bangor, Wales (UK) and IUFRO International Conference Transformation to Continuous Cover Forestry in a Changing Environment Consequences, Methods, Scenarios, Analyses <http://www.efi.fi/news/2004/CallforPapers.pdf>
- Sep 4-12** EUROSOIL, Freiburg, Germany; <http://www.bodenkunde.uni-freiburg.de/eurosoil/>; DiCosto to attend and present paper
- Sep 12-16** IUFRO Conference Regenerating Mountain Forests, Kloster Seeon, Bavaria, Germany; http://www.forst.tu-muenchen.de/events/rmf2004/index_en.html
- Sep 20-22** IUFRO All Division 8 Conference, Conservation biology and ecosystem functioning in plantation forests, Bordeaux, France; http://www.pierroton.inra.fr/IEFC/manifestations/IUFROD8_2004registration.php
- Sep 27-30** IUFRO Conference: The Economics and Management of High Productivity Plantations, Lugo, Spain; <http://www.lugo.usc.es/iufro>
- Oct 1-7** The National Wilderness Summit and Expo, Denver, CO; <http://www.wilderness.net/40th>
- Oct 2-6** Society American Foresters Annual Meeting, held jointly with Canadian Institute of Forestry, Edmonton, Alberta
<http://www.cif-saf-2004convention.org/natcon/>
- Oct 17-22** North American Forestry Commission, Joint Meeting of Silviculture and Genetics Working Groups, Morelia, Michoacán, México; Stanturf to attend
- Oct 18-22** Advancing the Fundamental Sciences - A Conference for Forest Service Physical Scientists, Shelter Point Island, San Diego, CA; abstract due April 30 <http://www.stream.fs.fed.us/EarthScience/NationalConference.html>
- Oct 19-21** SRS Management Team meeting, Coweeta
- Oct 31-Nov 3** Soil Science Society of America Annual Meeting, Seattle, WA.
- Nov 6-8** Southeastern Society American Foresters Annual Meeting, Jacksonville, FL “Managing forests for wildlife”
- *Nov 8-12** Short Rotation Woody Crops Operations Working Group Biennial Meeting, Charleston, SC; **abstracts due by June 15**; selected papers to be published as a special issue of Biomass and Bioenergy; http://www.woodycrops.org/meeting_2004_second_call.pdf
- Nov 17-25** IUCN Third World Conservation Congress (WCC), Bangkok.
- Nov 17-19** Assessment of the 2003 drought and heat impacts on forests, international conference sponsored by University of Freiburg, European Forestry Institute, Baden-Württemberg Forestry, FVA; Freiburg im Breisgau, Germany http://www.forst.uni-freiburg.de/Waldwachstum/Drought2003_Nov2004.htm
- *Nov 17-19** Mixed severity fire regimes: Ecology and management conference, Spokane, WA; <http://ww.emmps.wsu.edu/fire/>
- Nov 24-26** Introduction of broadleaf species for sustainable forest management, international conference sponsored by SUSTMAN project at the University of Ulm; to be held in Reisensburg, Germany, <http://www.sustman.de/Symposium.htm>
- Nov 28-Dec 2** International Poplar Commission Session 22, Santiago, Chile; Stanturf to attend and present <http://www.fao.org/forestry/foris/webview/forestry2/index.jsp?geoId=0&langId=1&siteId=1580>
- Dec 16-17** SOFOR GIS 2004, Athens, GA; <http://www.gactr.uga.edu/conferences/forestry/index.html>

2005

- Feb 28-Mar 4** Southern Silvicultural Research Conference, Memphis <http://www.srs.fs.usda.gov/bssrc/>
- Mar 13-16** Emerging Issues Along Urban/Rural Interfaces: Linking Science and Society; Atlanta, IUFRO 6.00; <http://www.sfws.auburn.edu/urbanruralinterfaces/>
- *May 11-13** Conference on Remote Sensing and Fire, to be held at George Mason University in Fairfax, VA.
- Aug 8-13** IUFRO World Congress, Brisbane, Australia. Stanturf to attend. <http://www.iufro2005.com>
- Aug/Sep** Society for Ecological Restoration 17th International Conference, Zaragoza, Spain.
- Oct 19-23** Society American Foresters Annual Meeting, Ft. Worth, TX
- Nov 6-10** Soil Science Society of American Annual Meeting, Salt Lake City, UT
- *Jun 20-24** 5th International Conference on Forest Vegetation Management, IUFRO Research Group 1.13.00 Forest Vegetation Management. Corvallis, Oregon, USA. **Abstracts for selection submitted on-line by November 30, 2004.** <http://outreach.cof.orst.edu/icfvm/index.htm>
- *Jul 18-22** AFFORNORD, Conference on Effects of Afforestation on Ecosystems, Landscape & Rural Development, Reykholt, Iceland; Abstracts due October 1, 2004, <http://www.skogur.is>

2006

- *Jun 6-10** National Silviculture Workshop, "Restoring fire-adapted forested ecosystems" location TBA
- Jul 9-15** 18th World Congress of Soil Science, in Philadelphia, PA <http://www.18wcss.org>



SRS-4104 Project Leader's Report

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