

The Inventory

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An Update Concerning the SRS FIA Program

SRS FIA Information Update

The Forest Inventory and Analysis (FIA) Program is given input on the direction, focus, and areas to emphasize in the implementation of the FIA Program from many groups, individuals, and policymakers in the government. Some of this input is formal and much of it is informal. We have already factored in Congressional direction that was conveyed through the recent Farm Bill to subsequently develop the National FIA Strategic Plan. Annually, a National FIA User Group meeting is held to afford users of FIA data a chance to provide input on the direction of the FIA Program. (See article in this edition of *The Inventory* for details on the most recently held National FIA User Group Meeting.)

One venue to provide input that you may not be aware of is the Technical Assistance Visit (TAV). This structure is unique to the U.S. Department of Agriculture, Forest Service, Research and Development (USDA FS R&D). In general, a TAV is designed to give stakeholders an opportunity to identify research needs for a Forest Service Research Work Unit (RWU) or Program. One of the outcomes of a TAV is a RWU or Program Charter that identifies the research topics that will be pursued over the next 5 years. This Charter is approved by the Station Director and the Deputy Chief of FS R&D. In order to develop this Charter, usually the RWU will implement all or a combination of the following activities that include; sending a draft Charter out for review by interested parties, circulating questionnaires about research direction, and/or host a TAV meeting where individuals from the RWU or Program present current research results and future research projects to an audience of representative stakeholders.

So, why am I bringing this description up now? The SRS (Southern Research Station) FIA is planning our TAV interactive session for August 19–20, 2015 in Knoxville, TN. If the group is small (<20) we might hold the session at our office in Knoxville but if the group is projected to be larger, we will arrange to meet offsite. JT Vogt has already sent out a questionnaire and draft RWU Charter to many individuals to solicit their feedback. Everyone on the mailing list for *The Inventory* should have received this information. We are currently finalizing the logistics for the session and will keep you posted. Please check back on our Web site or contact JT or me. If you are planning to attend, I look forward to talking with you.

As always, if you have any technical questions regarding FIA, please submit them to Charlene Walker (cwalker@fs.fed.us) and we will address them in a future issue of *The Inventory*. Thank you for your interest in FIA and please let us know how we may serve you in the future.

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Upcoming SRS FIA Technical Assistance Visit

As part of the USDA Forest Service's ongoing efforts to maintain alignment between stakeholder needs and Agency efforts, SRS FIA is holding a Stakeholder Research Review, otherwise known as a Technical Assistance Visit (TAV), in 2015. Recipients of *The Inventory* and others received an email back on March 30, 2015 with a TAV document and survey attached. The survey had several questions designed to assess the relevancy of what we currently do, any additional research needs we might consider pursuing, and some questions about how you wish to receive FIA information and what sort of information is important to you. Additionally, the survey had a section to RSVP for the actual TAV in August. Many of you returned the survey and we sincerely appreciate your input. Our next task is to take your survey responses and use them to craft an agenda designed to address the most pressing needs and concerns.

The meeting itself will take place in downtown Knoxville, TN, at the Crowne Plaza Knoxville (877-834-3613: <http://www.crowneknox.com/>) from 12:00 to 4:30 PM on Wednesday,

August 19, and 8:00 AM to 12:00 PM on Thursday, August 20, 2015. The hotel is located in downtown Knoxville, within easy walking distance of several good restaurants. On-site parking is \$10 per day. Participants are encouraged to reserve their rooms as soon as possible while Government per diem rates are available—a block of rooms has not been set aside for this event. There are other downtown hotels within walking distance of the Crowne Plaza as well.

An agenda will be forthcoming for all of those who responded. Also, on August 20, 2015, FIA will hold an open house at our office (4700 Old Kingston Pike, Knoxville) from 1:00 to 4:30 PM for any meeting participants that wish to drop by. If you require additional information, need a copy of the TAV document, or wish to attend but were unable to respond previously, please do not hesitate to contact Jim McKenzie at 865-862-2073 or jamckenzie@fs.fed.us or Dr. J.T. Vogt at 865-862-2035 or jtvogt@fs.fed.us. We look forward to seeing you soon!

Annual National FIA User Group Meeting

Bill Burkman, Sonja Oswalt, and Kerry Dooley participated in the National FIA User Group meeting in San Antonio, TX on April 1–2, 2015. The 2-day meeting involved participants from all four FIA regions, State partners, and data users from a range of sectors including other State and Federal government programs, forest industry, nonprofit organizations, and forestry consulting firms. This meeting is sponsored and organized by the National Council for Air and Stream Improvement and the Society of American Foresters. These annual session meetings provide a vital opportunity for information exchange between the FIA Program and many of the FIA data users.

Presentations were given as starting points to lead to discussions among participants. Ms. Dooley, along with Drew Crocker from Texas A&M Forest Service FIA Program, led a half-day field demonstration on data collection. The discussion focused on special measurements and techniques used in woodland forests and on the urban FIA plots.

Mrs. Oswalt gave a presentation on trends in forest area, forest type, and tree species. The presentation included a summary of the broad trends in forest area, wood product manufacturing and consumption, and forest-type proportions. In addition to the temporal trend analysis, comparisons were drawn between States and regions, as well as between the U.S. and other Nations.

Several discussions were led by Mr. Burkman, on program topics including budget expectations and probable impacts on the FIA Program, and the use and direction of FIA data tools and their development. He also gave a presentation on an update of the collection and distribution of annual data on tree planting in the U.S.

For additional information on this meeting including the agenda, some of the presentations, attendee list, and conclusions concerning the direction of the FIA Program from attendees, please visit the following Web site: <http://ncasi2.org/downloads/BWGF/>. (Note: this site has similar information from previous National User Group Meetings.)

*For more information,
contact Kerry Dooley at
828-712-7943 or
kdooley@fs.fed.us.*

The Extent of Potential Habitat for the Red-cockaded Woodpecker Across the Longleaf Pine Ecosystem, U.S.A.

The red-cockaded woodpecker (*Picoides borealis*) (RCW) is an endangered keystone species of longleaf pine (*Pinus palustris*) ecosystems in the Southeastern U.S.A. The bird is a cooperative breeder, 1 of 300 other such bird species worldwide—a unique life-history trait among the 10,000 species of birds in the world. Live longleaf pine trees >75 years of age are the preferred nesting sites for the RCW because they have a higher probability of developing red-heart fungus (*Phellinus pini*), a condition that softens heartwood. This makes cavity excavation less laborious for the RCW. However, loss of older longleaf pine stands is an immediate threat to the RCW.

We used data from the USDA Forest Service, FIA Program to examine the extent of longleaf stands with older trees across the eight southern coastal States stretching from North Carolina to Texas. We found 3,458,396 ($\pm 121,736$) hectare (ha) of forest land across the eight southern

coastal States with at least 14 longleaf pine trees per ha (TPH) that were ≥ 2.54 cm in diameter at breast height (d.b.h.) (the equivalent of one tree sampled per sample unit). A conservative estimate of suitable forest land habitat would assume the larger (older) trees had the best potential for the RCW niche. We found 1,388,160 ($\pm 88,420$) ha with large longleaf (≥ 35 cm d.b.h.) averaging 44 (± 3.7) TPH in these larger trees. An estimate of even better habitat potential was of stands with longleaf ≥ 45 cm d.b.h. There were 445,983 ($\pm 44,623$) ha of these stands averaging 29 (± 3.1) TPH. This area of potential habitat is only 13 percent of the total longleaf area. Although we have derived habitat estimates, it is difficult to determine minimal thresholds necessary to ensure sustainability of the RCW. Studies such as this are an important first step in defining the extent of habitat necessary for policy development directed toward conserving the species.

For more information, contact James F. Rosson, Jr. at 865-862-2067 or jrosson@fs.fed.us.

Updated Fusiform Rust Hazard Maps

Fusiform rust, a fungal disease caused by *Cronartium quercum* f. sp. *fusiforme*, is the most damaging disease of slash and loblolly pines in the Southeastern United States. Over the last 40 years, millions of research dollars have been spent developing methods to select, breed, and outplant rust-resistant slash and loblolly pine stock. As a result of decades of effort, productivity on pine plantations has doubled from what it was in 1940, and there has been some evidence that rust incidence has been greatly reduced in areas once deemed “high hazard.”

The SRS FIA has been collecting data on fusiform rust incidence in the slash and loblolly pine forests types since the mid to late 1970s.

Newly published findings¹ based on SRS FIA data show that fusiform rust levels in slash and loblolly pine stands in some areas of the South are lower now than 30 to 40 years ago, though in other areas the incidence of rust has changed very little. Results also showed that rust incidence was about equal in planted and natural loblolly stands but was higher in planted versus natural stands of slash pine. Updated rust hazard maps included in the findings can be used to guide the planting of rust-resistant stock across the South.

¹ Randolph, K.C.; Cowling; E.B.; Starkey, D.A. 2015. Long-term changes in fusiform rust incidence in the southeastern United States. *Journal of Forestry*. 12 p. <http://www.treesearch.fs.fed.us/pubs/47982>.

For more information, contact KaDonna Randolph at 865-862-2024 or krandolph@fs.fed.us.

International Short Course on the Analysis of Forest Inventory Data

Scientists from the FIA Programs at the Southern and Pacific Northwest Research Stations collaborated with faculty at the Tropical Agricultural Research and Higher Education Center (Centro Agronómico Tropical de Investigación y Enseñanza or CATIE) to present a short course on forest inventory data analysis on the CATIE campus in Turrialba, Costa Rica, May 26–29, 2015. This course was designed in response to requests by countries that have implemented or are planning forest inventories and now seek guidance on how to interpret and make the best use of information gathered. Drs. Thomas Brandeis, Humfredo Marcano, and Andrew Gray led a group of 20 participants from Costa Rica, Panama,

Honduras, Nicaragua, Guatemala, El Salvador, Belize, and Colombia through examples and exercises designed to provide experiences with data cleaning, analysis, and presentation. Using data collected in Honduras as part of a national park forest carbon inventory, participants produced short “factsheets” for assigned areas that focused on topics such as forest area, carbon storage, and tree species diversity. This activity was organized by the U.S. Forest Service International Programs and sponsored by the SilvaCarbon program as part of their efforts to enhance capacity worldwide for monitoring and managing forest and terrestrial carbon.

For more information, contact Thomas Brandeis at 865-862-2030, or tjbrandeis@fs.fed.us.

Status of Current Field Inventories

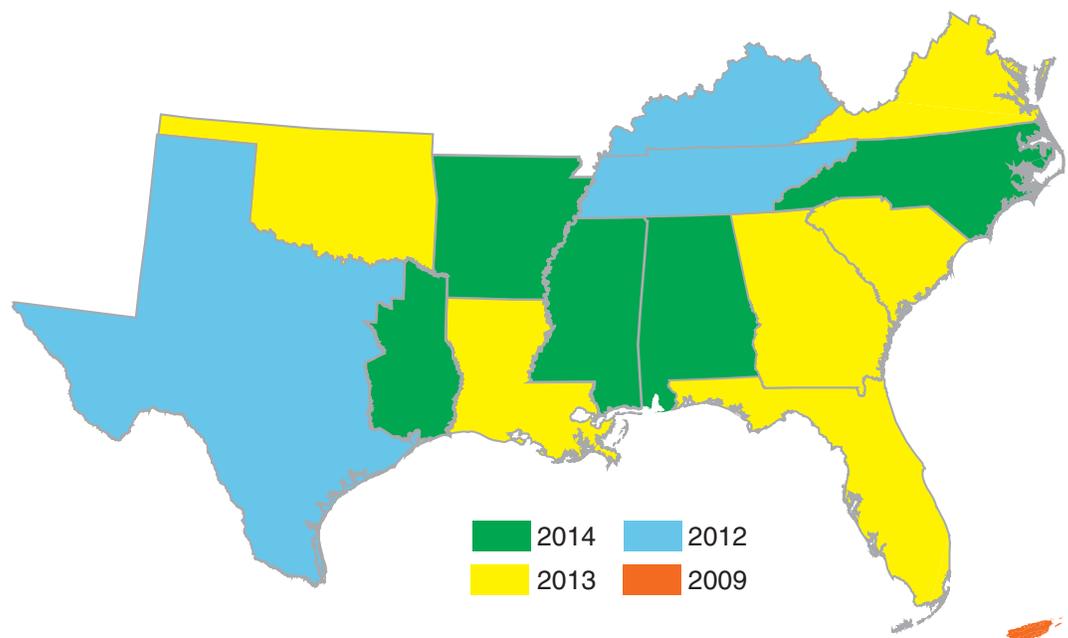
State	Cycle start date	Subcycle start date	Cycle and inventory year of current inventory	Percent of current subcycle collection completed
Alabama	2012	Sept-14	10-2015	62
Arkansas	2010	Jan-15	10-2015	37
Florida	2014	Apr-14	10-2015	7
Georgia	2015	Jan-15	11-2015	18
Kentucky	2010	Apr-13	7-2014	11
Louisiana	2009	May-15	8-2015	1
Mississippi	2009	Aug-14	9-2015	52
North Carolina	2008	Oct-14	9-2015	64
Oklahoma (east)	2015	Jan-15	9-2015	34
Oklahoma (west)	2009	May-15	2-2015	1
Puerto Rico	2014	Apr-14	5-2014	100
South Carolina	2012	Jan-15	11-2015	35
Tennessee	2009	Nov-14	9-2014	18
Texas (east)	2013	Dec-14	10-2015	40
Texas (west)	2015	Apr-15	2-2014	8
U.S. Virgin Islands	2014	Sept-14	3-2014	100
Virginia	2012	June-14	10-2014	71

Information compiled May 22, 2015.

For more information, contact Dale Trenda at 865-862-2039 or dtrenda@fs.fed.us.

Current Status of FIA Data Posted

Most Recent FIA Data by State and Collection Year



For more information, contact Ali Conner at 865-862-2228 or aconner@fs.fed.us.

Pulp and Paper Mill Closures' Effect on Forest Industries and Local Economies

Pulp, paper, and paperboard mills consume close to 52 percent of southern roundwood, providing a significant market to southern forest landowners. Declining numbers of pulpwood-using mills and downward trends in mill capacity, however, present a growing challenge to the southern forest sector. Shrinking mill capacity affects rural communities that depend on mill demand for labor and other production inputs. We investigated the effects of pulp and paper mill closures using multi-regional input-output models for two closed mills, providing the linkages among different

sectors, households, and governments in the regional economy. Results revealed the different effects across wood procuring zones with areas displaying significant loss in logging activity. Significance to other forestry-related industries depended on closed mills' inputs. We compared our results to information on the expected economic impact from a wood pellet mill, an alternative market for small-size wood. We expect research results will provide valuable information to policymakers and managers when addressing likely future changes in the paper manufacturing industry.



Truck unloading woodchips. (photo by Angie Rowe, SRS FIA)

For more information, contact Consuelo Brandeis at 865-862-2028 or cbrandeis@fs.fed.us.

FY2015 Research Publications Published since March 2015

- Brandeis, C.; Hodges, D.G. 2015. Forest sector and primary forest products industry contributions to the economies of the southern states: 2011 Update. *Journal of Forestry*. 113(2): 205–209.
- Brandeis, C.; Lambert, D.M. 2014. Projecting county pulpwood production with historical and macro-economic variables. *Journal of Forest Economics*. 20(3): 305–315.
- Brown, M.J. 2015. Forests of North Carolina, 2013. Resource Update FS–47. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Lambert, S.; Vogt, J.T.; Cooper, J. 2015. Forests of Oklahoma, 2013. Resource Update FS–48. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Oswalt, C.M. 2015. Forests of Kentucky, 2012. Resource Update FS–46. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Randolph, K.C.; Cowling, E.B.; Starkey, D.A. 2015. Long-term changes in fusiform rust incidence in the southeastern United States. *Journal of Forestry*. 12 p.
- Rosson, J.F., Jr. 2015. Forests of Arkansas, 2014. Resource Update FS–45. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Van Duesen, Paul C.; Roesch, F.A. Plot intensity and cycle-length effects on growth and removals estimates from forest inventories. *Mathematical and Computational Forestry and Natural Resource Sciences*. 7(1): 32–37.

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FIA is a USDA Forest Service research work unit which collects, analyzes, and reports on data pertaining to our forest land in the Southern region. This region includes Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, the U.S. Virgin Islands, and Virginia.

FIA conducts this program of research to improve the understanding of the Southern forest ecosystem.

Government and private agencies utilize this data to monitor forest resources, forest use, and forest health. The collection of data is done on private and public land.

Our system development success is a direct result of our partners, our talented scientists, analysts, computer specialists, and other staff members who have continually contributed to the mission of this complex project.

The Forest Service, U.S. Department of Agriculture (USDA), is dedicated to the principle of multiple use management of the Nation's forest resources for sustained yields of wood, water, forage, wildlife, and recreation. Through forestry research, cooperation with the States and private forest owners, and management of the National Forests and National Grasslands, it strives—as directed by Congress—to provide increasingly greater service to a growing Nation.

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National and Southern FIA Web sites of Interest

National FIA Web site: <http://www.fia.fs.fed.us>

National FIA database available at: <http://www.fia.fs.fed.us/tools-data/other/default.asp>

National Timber Product Output (TPO) database available at: <http://srsfia2.fs.fed.us/>

National Woodland Owner Survey Web site: <http://www.fia.fs.fed.us/nwos/>

Information specific to Southern States: <http://srsfia2.fs.fed.us/>

Electronic copies of SRS FIA publications at: <http://www.srs.fs.usda.gov/pubs/>