

The Inventory

An Update Concerning the SRS FIA Program

Issue 35
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Inside this issue:

Status of Current Field Inventories	2
Field Personnel Participate in Office Detail	2
Forest Service Scientists Conduct Workshop in Vietnam	3
FY2014 Publications Published Since June 2014	3-5
Current Status of FIA Data Posted	6
Fusiform Rust Persists in the Southeastern United States	6
National and Southern FIA Web sites of Interest	7

SRS FIA Information Update

Partners and collaborators are the lifeblood of the Forest Inventory and Analysis (FIA) Program. In terms of delivering the Southern FIA Program, our job would be more difficult without the partnership with our state forestry organizations. They have been instrumental in the collection of FIA data in the southern United States. The same can be said of our other collaborators, primarily university researchers who help answer the research questions to advance the FIA program. They can provide expertise that may not exist within the Southern Research Station (SRS) FIA Program or even nationally within FIA.

All of this work done by SRS FIA and our partners is to support the customers in the use of FIA data. In this case our State and university partners can also be customers. In addition to these traditional or historic customers, forest industry is also a major long-term customer of FIA data. As the FIA expands such as through the latest Farm Bill and subsequent National FIA Strategic Plan, our customer list will grow, especially in areas outside of tradition use of FIA data. This is good! By increasing our customer list and providing additional data and information, we increase the numbers FIA supporters. In addition, we build a broader and more diverse list of supporters. This was one of the factors that were outcomes of the First and Second Blue Ribbon Panels on the FIA Program. This diverse list of groups publically supported the growth of the FIA Program in the mid-1990s. It assisted to get the FIA Program where it is today.

As always, if you have any technical questions regarding FIA, please submit those questions 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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Status of Current Field Inventories

State	Cycle start date	Subcycle start date	Cycle and subcycle of current inventory	Percent of current subcycle collection completed
Alabama	2012	Sept-13	10-2014	84
Arkansas	2010	Jan-14	10-2014	58
Florida	2014	Feb-14	10-2014	54
Georgia	2009	Nov-13	10-2014	67
Kentucky	2010	June-13	7-2013	68
Louisiana	2009	Feb-14	8-2014	36
Mississippi	2009	Aug-14	9-2014	7
North Carolina	2008	Oct-13	9-2014	85
Oklahoma (east)	2010	Jan-14	8-2014	99
Oklahoma (west)	2009	June-14	2-2014	18
Puerto Rico	2011	June-13	5-2013	92
South Carolina	2012	Jan-14	11-2014	60
Tennessee	2009	June-13	9-2013	94
Texas (east)	2013	Nov-13	10-2014	66
Texas (west)	2004	Apr-13	1-2013	61
U.S. Virgin Islands	2009	Aug-14	3-2014	0
Virginia	2012	June-14	10-2014	13

Information compiled August 27, 2014.

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

Field Personnel Participate in Office Detail

Beginning June 29, 2014, Lee McCord (FIA Field Forester, Mississippi) and Kerry Dooley (FIA QA/QC Forester, Texas) traveled to Knoxville, TN to spend 6 weeks working with the Resource Use section of the Southern Research Station (SRS), Forest Inventory and Analysis (FIA) Program. During their tenure in these positions Lee and Kerry conducted primary mill surveys for selected States, entered mill survey information into a national database program, participated in a meeting with forest industry executives interested in SRS FIA data, and co-authored State Factsheets and Harvest and Utilization studies. They also had the opportunity to interact with personnel from other sections within SRS FIA, gaining a better understanding of various roles in the program. It

was a good opportunity for these field personnel to see how the data they collect in their regular positions is compiled, analyzed and, shared with the public. In turn, personnel who have not had recent opportunity to visit field plots were able to get clarification on how data collection changes are playing out on the ground. Seeing the end products and the interest from user groups gave Kerry a better sense of how useful the field data she gathers can be. Gaining this perspective will make the sometimes challenging field conditions encountered in data collection a little more bearable.

In the coming weeks, Peter McBride (FIA Field Forester, Louisiana), will spend 6 weeks doing similar work in the Knoxville office.

Forest Service Scientists Conduct Workshop in Vietnam

SilvaCarbon is a flagship program that supports the United States Government's strategy for fast start financing for countries participating in reducing emissions from deforestation and forest degradation and enhancing forest carbon stocks (REDD+) in developing countries. As one of the cooperating Federal agencies in the SilvaCarbon effort, the U.S. Forest Service's (USFS) International Programs and FIA Program have shared experiences with several countries on the design and implementation of national forest inventories, including the Government of Vietnam.

In preparation for the collection of ecological research plot data and the implementation of a fifth national forest inventory, Vietnam has

requested additional collaboration and capacity building on data analysis and interpretation. A forest inventory data analysis workshop was designed in recognition of the importance of delivering information to those that need it to make decisions on forest resource management, to make better use of the resources spent implementing an inventory, and thereby maintain support for forest inventory programs.

The USFS provided Vietnam with training on data analysis and interpretation. The workshop, which lasted from June 30, 2014 to July 3, 2014, covered data processing, data review post processing, estimating tree volume, tree biomass, and forest carbon pools from forest inventory data, and data presentation.



Forest Service employees conduct workshop in Hanoi, Vietnam.

For more information, contact
Anita Rose at 865-862-2029 or
anitarose@fs.fed.us.

FY2014 Publications Published Since June 2014

- Adame, P.; Uriarte, M.; Brandeis, T.J.** 2014. Diameter growth performance of tree functional groups in Puerto Rican secondary tropical forests. *Forest Systems*. 23(1):52–63.
- Bentley, J.W.; Brandeis, C.; Cooper, J.A. [and others].** 2014. Texas' forests, 2008. *Resour. Bull.* SRS-198. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 138 p.
- Bowker, J.M.; Askew, A.E.; Poudyal, N. [and others].** 2013. Climate change and outdoor recreation participation in the southern United States. In: Vose, J.M.; Klepzig, K.D. eds. *The climate change adaptation and mitigation management options: a guide for natural resource managers in southern forest ecosystem*. CRC Press. Taylor and Francis Group, LLC. Chapter 12.
- Brandeis, T.J.; Escobedo, F.J.; Staudhammer, C.L. [and others].** 2014. San Juan Bay Estuary watershed urban forest inventory. *Gen. Tech. Rep.* SRS-190. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 44 p.
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Published Since June 2014
(continued)**

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- Chamberlain, J.; Prisley, S.; McGuffin, M.** 2014. [poster] Ginseng, timber harvest, and hardwood forests inventory to improve comanagment. *Journal of Forestry*. Proceedings of National Convention of Society of American Foresters. January.
- Chamberlain, J.; Munsell, J.; Kruger, S.** 2014. Nontimber output assessment: tracking those other forest products. *Journal of Forestry*. Proceedings of National Convention of Society of American Foresters. January.
- Chamberlain, J.; Ness, G.; Small, C. [and others].** 2014. [poster] Modelling belowground biomass of black cohosh, a medicinal forest product. *Journal of Forestry*. Proceedings of National Convention of Society of American Foresters. January.
- Coulston, J.W.; Reams, G.A.; Wear, D.N.; Brewer, C.K.** 2014. An analysis of forest land use, forest land cover, and change at policy-relevant scales. *Forestry*. 87(2): 267–276.
- Cowling, E.; Randolph, K.** 2013. Potentials for mutually beneficial collaboration between FIA specialists and IEG-40 pathologists and geneticists working on fusiform rust. *Forests*. 4(4):1220-1231. DOI 10.3390/f4041220.
- Desprez, J.; Iannone, B.V.; Yang, P. [and others].** 2014. Northward migration under a changing climate: a case study of blackgum (*Nyssa sylvatica*). *Climatic Change*. July 2014. <http://link.springer.com/article/10.1007%2Fs10584-014-1207-z>.
- Erickson, H.E.; Helmer, E.H.; Brandeis, T.J.; Lugo, A.E.** 2014. Controls on fallen leaf chemistry and forest floor element masses in native and novel forests across a tropical island. *Ecosphere*. 54(4):1–28.
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- Harper, R.A.; Mo, J.; Straka, T.J.** 2013. Impacts on South Carolina timber production over the last five decades. *Carolina Forestry Journal*. Jan/Feb. 6–7.
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- Hart, J.L.; Oswalt, C.M.; Turberville, C.M.** 2014. Population dynamics of sugar maple through the southern portion of its range: implications for range migration. *Botany*. 92:563–569.
- Housman, I.; Mondal, P.; Hamilton, R. [and others].** 2013. Percent impervious landcover modeling: analyzing the impacts of model types, calibration methods, and ecoregions. RSAC-10025-RPT1. Salt Lake City, UT: U.S. Department of Agriculture Forest Service, Remote Sensing Applications Center. 13 p.
- Huggett, R.; Wear, D.N.; Li, R. [and others].** 2013. Forecasts of forest conditions. In: Wear, D.N.; Greis, J.G., eds. 2013. The southern forest futures project. Gen. Tech. Rep. SRS–178. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 73–101.
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- Koch, F.H.; Smith, W.D.; Coulston, J.W.** 2013. An improved method for standardized mapping of drought conditions. In: Potter, K.M.; Conkling, B.L., eds. 2013. Forest health monitoring: national status, trends, and analysis 2010. Gen. Tech. Rep. SRS–176. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 67-83.
- Koch, F.H.; Smith, W.D.; Coulston, J.W.** 2013. Recent drought conditions in the coterminous United States. Chapter 4 In: Potter, K.M.; Conkling, B.L., eds. Forest health monitoring 2011 National Technical Report. Gen. Tech. Rep. SRS–185. Asheville, North Carolina: U.S. Department of Agriculture, Forest Service, Southern Research Station. 41–56.
- Lane, V.; Cordell, K.; Zarnoch, S. [and others].** 2014. The Forest Service safety survey: results from an employee-wide safety attitude survey. e-Gen. Tech. Rep. SRS–191. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 58 p.

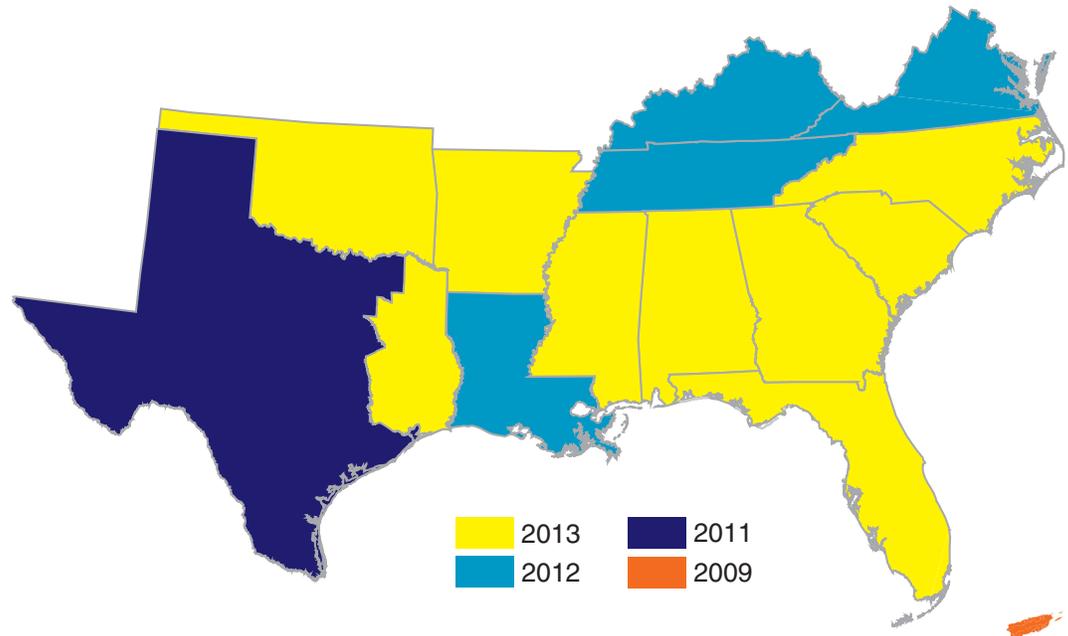
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**FY2014 Publications
Published Since June 2014
(continued)**

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- Oswalt, S.N.; Oswalt, C. M.** 2014. Invasive plants found in Georgia's forests, 2010–forest inventory and analysis factsheet. e-Science Update SRS–101. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Oswalt, S.N.; Oswalt, C.M.** 2014. Invasive plants found in Oklahoma's forests, 2010—forest inventory and analysis factsheet. e-Science Update SRS–102. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
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- Podlaski, R.; Roesch, F.A.** 2013. Aproksymacja rozkładów pierśnic drzew w dwugeneracyjnych drzewostanach za pomocą rozkładów mieszanych II. Testy zgodności. Approximation of the breast height diameter distribution of two-cohort stands by mixture models II. Goodness-of-fit tests. *Sylvan*. 157(9):652–661.
- Podlaski, R.; Roesch, F.A.** 2013. Aproksymacja rozkładów pierśnic drzew w dwugeneracyjnych drzewostanach za pomocą rozkładów mieszanych I. Estymacja parametrów. Approximation of the breast height diameter distribution of two-cohort stands by mixture models I. Parameter estimation. *Sylvan*. 157(8):587–596.
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- Podlaski, R.; Roesch, F.A.** 2014. Modelling diameter distributions of two-cohort forest stands with various proportions of dominant species: a two-component mixture model approach, *Mathematical Biosciences*. (2014), 249:60–74. doi: <http://dx.doi.org/10.1016/j.mbs.2014.01.007>.
- Riitters, K.H.; Coulston, J.W.** 2013. Fragmentation of eastern United States forest types. In: Potter, K.M.; Conkling, B.L., eds. Forest health monitoring 2011 national technical report. Gen. Tech. Rep. SRS–185. Asheville, North Carolina: U.S. Department of Agriculture Forest Service, Southern Research Station. 6:71–76.
- Roesch, F.A.** 2014. Toward robust estimation of the components of forest population change. *For. Sci.* 60(6):000–000. Forest Science FastTrack site 1/23/2014. Tentatively slated for December 2014 issue. <http://dx.doi.org/10.5849/forsci.13–132>.
- Roesch, F.A.** 2014. Toward robust estimation of the components of forest population change: simulation Results. e-Gen. Tech Rep. SRS–194. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 79 p.
- Rose, Anita K.** 2014. Virginia's forests, 2012. e-Science Update. SRS–084. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Rosson, James F., Jr.** 2014. Forests of Arkansas, 2013. 2014. Resource Update FS–12. Asheville, NC: U.S. Department of Agriculture Forest Service, Southern Research Station. 4 p.
- Small, C.J.; Chamberlain, J.L.; Nuckols, C.M.** 2014. Failure of black cohosh (*Actaea racemosa* L.) rhizome transplants: potential causes and forest farming implications. *Agroforestry Systems*. 22 July.
- Timilsina, N.B.; Escobedo, F.J.; Cropper, W.P. [and others].** 2013. A framework for identifying carbon hotspots and forest management drivers. *Journal of Environmental Management*. 114:293–302.
- Timilsina, N.B.; Escobedo, F.J.; Staudhammer, C.L.; Brandeis, T.J.** 2014. Analyzing the causal factors of carbon stores in a subtropical urban forest ecosystem. *Ecological Complexity*. 20:23–32.
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- Trozzo, K.E.; Munsell, J.F.; Chamberlain, J.L.; Aust, W.M.** 2014. Potential adoption of agroforestry riparian buffers based on landowner and streamside characteristics. *Journal of Soil and Water Conservation*. 69(2):140–150.
- Wickham, J.D.; Homer, C.; Fry, J. [and others].** 2014. The multi-resolution land characteristics (MRLC) consortium—20 years of development and integration of U.S. national land cover data. *Remote Sensing*. 6(8):7424–7441. doi:10.3390/rs6087424.
- Zarnoch S.J.; Blake, J.I.; Parresol, B.R.** 2014. Are prescribed fire and thinning dominant processes affecting snag occurrence at a landscape scale? *Forest Ecology and Management*. 331:144–152.

Current Status of FIA Data Posted

Most Recent FIA Data by State and Collection Year

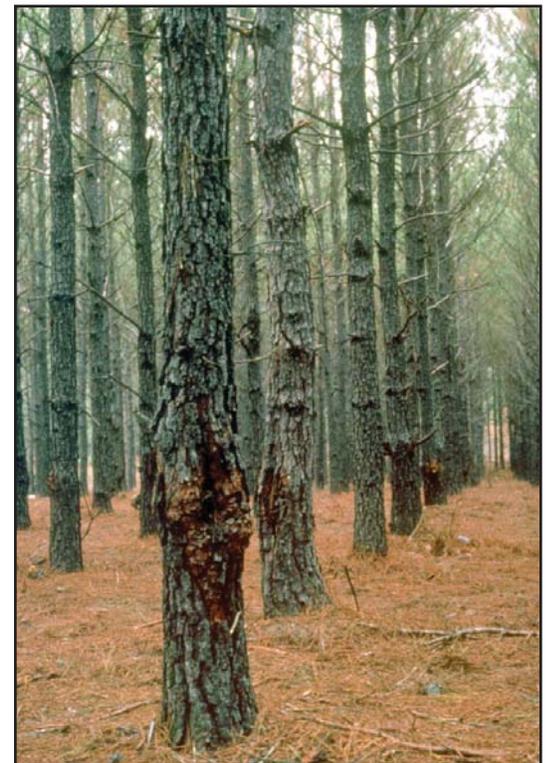


For more information, contact Ali Conner at 865-862-2228 or aconner@fs.fed.us.

Fusiform Rust Persists in the Southeastern United States

Fusiform rust is a devastating disease that affects pine trees, particularly slash and loblolly in the southeastern United States. It is caused by a fungus that usually infects pine trees at a very young age. Swellings known as galls or cankers occur at the point of infection. Tree mortality often occurs as a result of the disease or, if the tree survives, the cankers become points of future breakage.

In 1970, annual southwide losses caused by fusiform rust were estimated to be about \$250 million. Since then, millions of research dollars have been spent selecting, breeding, and out-planting rust-resistant slash and loblolly pine planting stock in an effort to reduce disease losses. As a result of these research efforts, as well as improved management activities, pine plantation productivity today is more than double what it was in 1940. Nevertheless, fusiform rust continues to persist in southern pine plantations. This study uses data from the U.S. Forest Service FIA Inventory and Analysis Program to evaluate what changes, if any, have occurred in fusiform rust incidence over the last 30 years. Results showed that in some areas, fusiform rust currently exists at levels lower than those observed in the 1980s, whereas in other areas, fusiform rust incidence has changed very little over the last 30 years.



Fusiform rust stand showing many cankers.

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

More detailed information about the disease can be read here: <http://www.na.fs.fed.us/spfo/pubs/fidls/fusiform/fidl-fusi.htm>

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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/>