

The background of the entire page is a photograph of a dense forest with green foliage. Overlaid on this image is a network of thin, light green lines connecting various points, some of which are highlighted with small, semi-transparent green circles, creating a digital or data-like aesthetic.

# 2016

A N N U A L   R E P O R T

# SREF



Southern Regional  
Extension Forestry

# About SREF

## HISTORY



**1979**

...the 13 Southern 1862 Land-Grant institutions and the USDA Forest Service signed a cooperative agreement creating the Southern Regional Extension Forester position to serve as a liaison role between them.

## MISSION

To serve the Southern Land-Grant University System and forestry professionals by collaborative development of forestry technologies and programs to improve the efficiency, effectiveness, and relevance of supporting institutions.

## THE TEAM

Regional Forester



Extension Associate



IT Programmer



Comm. & Marketing



Office Manager



The Southern Regional Extension Forester's position has evolved into a regional programming, representation, promotion, and communications team of...

**11** TOTAL STAFF

...working on **14 grants** from state and regional partners.

## GREETINGS FROM THE REGIONAL FORESTER

Dear Natural Resource Professional,



It gives me great pride and gratitude to provide you with another annual report from the office of the Southern Regional Extension Forester (SREF). If 2014 and 2015 were years of great growth in our offices' capacity to serve the Land-grant University system, the Forest Service, and other educators, 2016 was the year in which we leveraged that growth to achieve tremendous productivity and accomplishment. Our staff has collaborated across the region to address many of the natural resource issues, needs, and opportunities that transcend agency, state, and discipline boundaries. The result has been an abundance of educational tools, technologies, and experiences such as webinars, websites, e-Learning modules, presentations, regional peer reviewed publications, videos, and other products.

Please take some time to peruse this year's report. You'll see we have organized the report by the major goals and objectives outlined in the Memorandum of Understanding between the thirteen 1862 Land-grant Universities in the South and the USDA Forest Service - Southern Region (available for viewing online at [www.sref.info](http://www.sref.info)). These goals and objectives are based on the driving principle that together we can accomplish much more. As our regional specialists work to address key southern issues and opportunities, they do so in cooperation with university Extension and state forestry agency personnel in your state. As staff gets out to know state Extension and forestry agency professionals in your state, I hope that you will engage them in issues and opportunities that keep our office and the entire natural resource education community relevant to you and the stakeholders in your state.

Best regards for a productive 2017 and beyond.

Sincerely,

*William G. Hubbard*

William G. Hubbard  
Regional Forester

CONTACT:

[whubbard@sref.info](mailto:whubbard@sref.info)

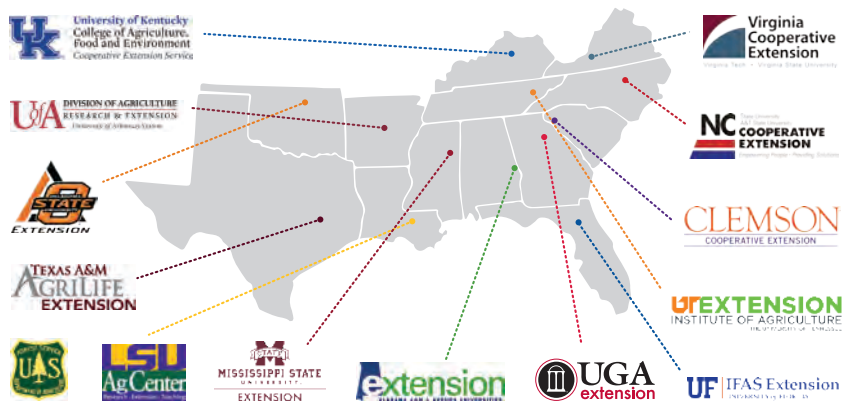
Association of Southern Region Extension Directors (ASRED) and  
USDA Forest Service - State and Private Forestry - Southern Region



Our work involves an increasing number of moving parts. Each part hinges on listening to and cultivating relationships with our partners. In other words, the success of each part depends on connections. Only through partner connections can we continue to develop products and services uniquely suited to enhance Extension programming in the Southern Region. This annual report is organized around the theme of connections and how our activities serve to build and maintain them.

## CONNECTIONS: PEOPLE AND PROGRAMS

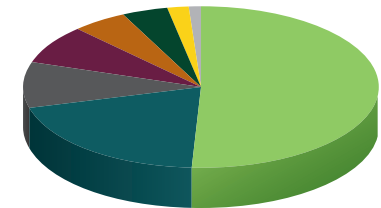
SREF staff work across a 13-state region that includes over 100 Extension experts in a variety of disciplines. This workforce of trained and experienced forestry, wildlife, and natural resources Extension professionals spend their time developing and delivering information that is used to improve our social, economic, and environmental welfare in the South. In 2016, all states except Oklahoma had at least one state level forest management Extension specialist, and most had anywhere from two to five. This past year, several states hired Extension specialists as replacements or new positions to address key issues such as forest health, timberland economics and taxation, and wildlife management. A little more than half the natural resource specialists were foresters, while 20% and 10% had wildlife or wood products responsibilities, respectively. Other disciplines included environmental education (8% of the specialists), urban and community forestry (5%) and continuing education (4%). The amount of Extension FTEs at the state versus district or county level varied widely by state. Expertise in South Carolina and Louisiana, for example, was spread throughout the state, while expertise in Arkansas, Florida and Tennessee were centrally located at the Extension headquarters or the Land Grant university site.



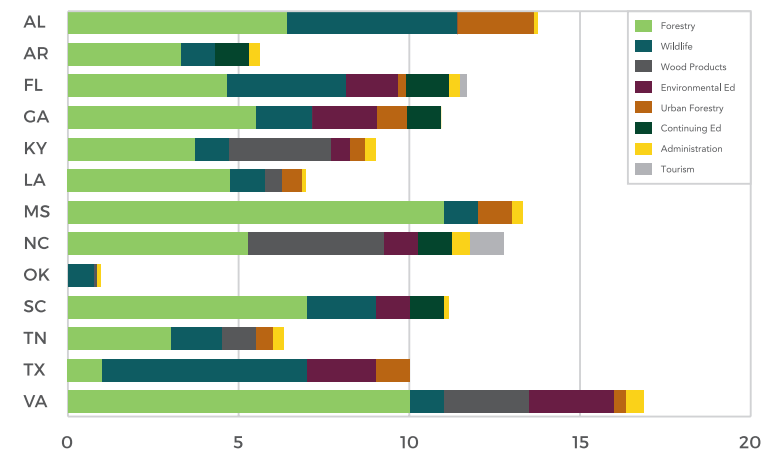
### TOTAL FTE'S BY DISCIPLINE AREA IN THE SOUTHERN US

Total FTE's: 128

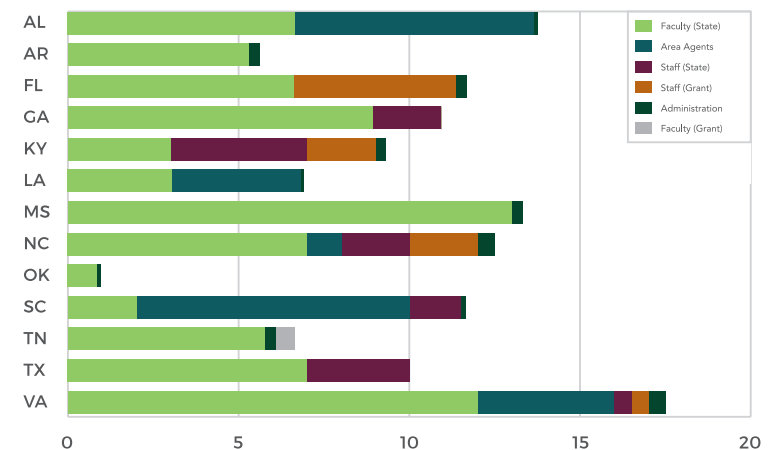
|                              |     |
|------------------------------|-----|
| Forestry - 65.5              | 51% |
| Wildlife - 25.5              | 20% |
| Wood Products - 11           | 9%  |
| Environmental Education - 10 | 8%  |
| Urban Forestry - 7           | 5%  |
| Continuing Education - 5     | 4%  |
| Administration - 3           | 2%  |
| Tourism - 1                  | 1%  |



### TOTAL FTE'S BY DISCIPLINE AREA AND STATE IN THE SOUTHERN US



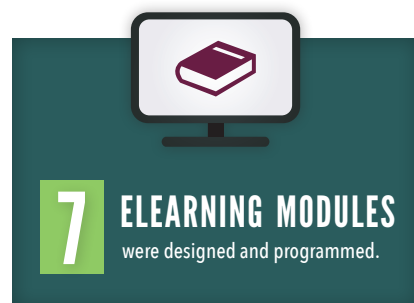
### TOTAL FTE'S BY PROFESSIONAL STATUS AND STATE IN THE SOUTHERN US



## CONNECTIONS: PROGRAMS, PRODUCTS AND PARTICIPANTS

SREF staff provided leadership, content, or both to several initiatives that produced educational materials useful to Extension natural resource programs and professionals across the region. Materials produced included websites, fact sheets, e-learning modules, articles for peer-reviewed journals, videos, and mobile applications. These materials were created in collaboration with our partners to address regional needs and opportunities related to several programming areas.

Our webinar portal remains unique among the educational platforms in the world. Our IT professionals created and maintain a robust content management system that supports 5 different portals, [forestrywebinars.net](http://forestrywebinars.net) and [conservationwebinars.net](http://conservationwebinars.net) being the most popular. In 2016 alone, there were over 40,000 live and archived webinars viewed with an average rating of 4.1 on a 5-point scale. Users earned over 9300 official credit hours for professional development requirements from



at least 10 organizations. By training online rather than on site, participants saved, per webinar, an average of \$200 in fuel expenses and 3.8 hours of travel time. If our users had attended training in person rather than online, they collectively would have had to travel 8 million miles and consume over 400,000 gallons of fuel between them. Eliminating travel ultimately kept over 3,900 tons of carbon out of the atmosphere.



## CONNECTIONS: NEEDS ASSESSMENTS AND STRATEGIC PLANNING

In addition to gathering input from the state Extension leaders at their annual meeting, SREF staff work closely with several groups who also collectively identify regional issues and opportunities. Many state forestry agency partners operate through task/subject related committees, and SREF's committee participation has led to several of the projects and programs outlined in subsequent sections of this annual report.

To continue to be relevant in meeting regional Extension needs, SREF staff assisted with or directed two efforts to assess needs of the forest resource profession, one in late 2015 and another in early 2017. The first effort, a national meeting of Extension Forestry and wood products specialists was held in Cocodrie, Louisiana (2015); SREF office assisted with the planning, facilitating, recording and developing of the meeting and its subsequent final strategic report. This report, "Learning from our Past, Designing Our Future: New Directions in Regional & National Forestry & Wood Products Extension" (Tanger, Johnson, Hubbard, Sisock, and Norland, 2017) is available at [www.sref.info](http://www.sref.info).

This meeting and the subsequent



report provide critical guidance on essential needs of the Extension forestry community. Recommendations from the report specific to the South are included here:

*"The Southern Region is large and diverse, encompassing 13 states. One key issue to move forestry and natural resources Extension forward in the region includes stronger engagement with political leaders, both at the state and federal levels. Politicians who are also landowners should be sought out and relationships should be developed. County level agents may be in the best position to make and nourish these relationships. Additionally, Extension faculty need to get better at marketing what they do, not only externally, but internally as well. Extension faculty need to better showcase efforts and achievements within universities, and create bridges for engagement with the broader university. Building*

*the capacity of Extension is a real need in the region. Other things that need improvement in the South include getting better at utilizing social media, mentoring younger Extension professionals, developing tools and techniques for Extension work, and reaching out to new Extension faculty so that they feel included and not excluded and isolated. Utilizing flexible working schedules can help to prevent burnout of newer faculty. Extension also needs to reach out to non-traditional partners and seek new strategies that reflect how people want to receive information today."*

Key suggestions from the Cocodrie report:

- Engage political leaders at multiple levels through relationships with Extension at all levels, especially at the county level
- Improve marketing ability of Extension faculty to better showcase efforts and achievements within universities and create bridges for engagement with the broader university
- Mentor new Extension faculty to help them start their programs, improve their tools and techniques for Extension work and help them feel included in the larger community and avoid burnout
- Build the capacity of Extension, which is a real need in the region
- Improve external marketing including using social media to reach clientele

The second effort, a regional needs assessment was launched in early 2017. The electronic survey was sent to close to 200 Extension natural resource specialists, natural resource deans, agriculture and natural resource (ANR) program leaders, and Extension Directors to provide an assessment of the current impact of SREF work, as well as needs for the future. Information from this assessment and the Cocodrie report will guide SREF's future work plans and initiatives.



LUMCON conference group photo. Credit: Shaun Tanger

## CONNECTIONS: SPECIAL PROJECTS AND INITIATIVES

SREF staff participated in and planned regional workshops, worked on regional forestry and natural resource committees, and coordinated several initiatives aimed at enhancing Extension forestry and natural resource programs. These efforts included the cooperation of key partners and focused on furthering state and regional Extension natural resource visibility and impact. In many of these projects, new technologies were incorporated to fulfill education and outreach objectives. Some of these technologies included mobile applications, social media, eLearning development software, and cyber-security practices.

To ensure the continued relevance of our educational activities to our partners and to foster a strong and connected Extension forestry community, SREF staff spent a good deal of 2016 actively engaged as



## SREF ON THE ROAD



*Bill Hubbard, on an Extension field trip.*



*Steven Weaver, Shortleaf Pine Initiative Director Mike Black, & Holly Campbell on a shortleaf site in TN.*

participants, speakers, exhibitors, and moderators at meetings, workshops and other events across the 13-state range and beyond.



Between our 11 staff members, we brought education and outreach opportunities to, delivered lectures at, and attended relevant conferences in 56 U.S. cities and 1 Canadian city. Through this rigorous travel schedule we cultivated and strengthened personal relationships with partners while learning firsthand about the challenges and opportunities unique to our region.





## CONNECTIONS: IMPROVED COMMUNICATION AND COOPERATION

The SREF office strives to be a conduit for collaboration, communication, and cooperation between various federal, state, university, and other partners that compose the natural resources education and technology transfer community. To improve communication and collaboration, office staff have embraced new technologies such as Facebook and Twitter, which are now mainstays of our communication

and marketing plan. We also monitor and manage several listserves and online directories of forest resource educators and allied professionals. While staying on top of new technology, we emphasize the importance of in-person communication as well. We host an annual Unit Leader's meeting involving at least one Extension forest resource leader from each state and partners from the USDA Forest Service, Southern



Bill Hubbard, Forestry for Nonforesters class, Whitehall Forest, Athens, GA

NAUFRP, ASRED, Extension ANR, state forestry agencies, and the private. Much more than a forum for sharing information, this event is a key means by which Extension and education leaders in the natural resources arena can connect in person, share information, and work with the SREF office to provide input into its work planning. In the past, this meeting has served as a catalyst for many innovative regional programs, including the Master Tree Farmer Program and the [forestrywebinars.net](http://forestrywebinars.net) webinar portal service.



January 2016, Unit Leader's Meeting, Athens, GA

## CONNECTIONS: RESOURCE ACQUISITION

SREF staff are in a unique position to assist with grant scoping and coordination due to the regional nature of their jobs. Staff contributed to and/or provided leadership and facilitation in competitive applications for over \$18 million dollars in regional grants and contracts. While not every one of these grants will be funded, several have a significant potential for direct funding that will benefit many participating states. Indirect returns from the grants also go to participating universities, and these funds have numbered in the hundreds of thousands of dollars on projects that SREF has participated in over the years. Grants offer SREF and participating states an opportunity to expand our joint capacity to serve relevant stakeholders. Look for this trend to continue; Extension is increasingly becoming a key component of many integrated research outreach programs across the Southern landscape.

## COMPETITIVE GRANTS: 2016

In late 2015 and 2016, the staff at SREF either led or were asked to participate in close to 19 million dollars in competitive grants. In addition, SREF staff worked successfully to bring in over \$500,000 in contracts and agreements.

| Grant Title  | Lead                         | States Involved    | \$ Amount           | Agency              | SREF Involvement                          | SREF Role | Status     |
|--|------------------------------|--------------------|---------------------|---------------------|---|-----------|------------|
| Sustaining Excellence in Forest Resources Extension  | Bill Hubbard, SREF           | NC, KY, GA         | \$80,000            | USDA NIFA           | Bill Hubbard                              | co-PI     | Funded     |
| Pre-Proposal: Assessing Impact of Bioenergy Development on Ecosystem Services in Context of Evolving                     | Puneet Dwivedi, UGA          | GA, SC, AL         | \$149,808           | USDA NIFA           | Bill Hubbard, Leslie Boby, and Dan Geller | co-PI     | Not Funded |
| Climate Learning Network Climate Masters Program   | Dan Geller, UGA              | NC, SC, FL, GA     | \$249,181           | USDA NIFA           | Bill Hubbard and Dan Geller               | co-PI     | Submitted  |
| Southeast Partnership for Advanced Renewables from Carinara (SPARC)  | Sheeja George, UF            | AL, FL, GA, SC, MS | \$15,000,00         | USDA NIFA           | Bill Hubbard and Dan Geller               | co-PI     | Submitted  |
| Characterizing the Role of Urban Forestry in Reducing Light Pollution in the United States                               | Puneet Dwivedi, UGA, GA Tech | GA                 | \$221,725           | USDA Forest Service | Bill Hubbard and Holly Campbell           | co-PI     | Not Funded |
| A Standard Replicable Economic Contribution Analysis Framework of Forestry & Forestry Products for Extension Application | Shaun Tanger, LSU            | LA, MS, GA         | \$200,000           | USDA NIFA           | Leslie Boby                               | Sub-Award | Not Funded |
| Managing African American Forestland Across Generations: A Community Based Landscape Approach                            | Puneet Dwivedi, UGA          | GA                 | \$250,000           | USDA AFRI           | Bill Hubbard, Leslie Boby, and Dan Geller | co-PI     | Not Funded |
| Increasing Resiliency of Agriculture and Forestry Landscapes in the Presence of Climatic Variability in the SE U.S.      | Liz Kramer, UGA              | GA, IL, FL         | \$2,000,000         | USDA AFRI           | Bill Hubbard, Leslie Boby, and Dan Geller | co-PI     | Submitted  |
| Kentucky Forest Health Research and Education Initiative   | Luke Dodd, KY                | GA, KY             | \$745,828           | USDA NLGCA          | Dave Coyle and Bill Hubbard               | co-PI     | Not Funded |
| County Level Economic Impact Training in Forestry  | Bill Hubbard, SREF           | KY, LA, MS, SC     | \$100,000           | USDA NIFA           | Leslie Boby                               | Sub-Award | Submitted  |
| <b>TOTAL:</b>  |                              |                    | <b>\$18,996,542</b> |                     |   |           |            |



## 2017: WHAT'S NEXT FOR SREF?

After 2015's growth, 2016 was a year of connection and creation for our office. We leveraged 2015's SREF staff expansion to produce even more educational resources for our region and increased our contacts and engagement with our partners at the 13 Southern Land-grant Universities. With staff at full capacity, we conducted a needs assessment to better understand our partners' unique challenges and needs. Information from this assessment will help us continue to be strategic in our approach towards programming as well as provide guidance for focusing our efforts.

In 2017, our goal will be to continue the rapid pace, wide

reach, and heightened productivity of the previous year while tailoring our activity to address the needs of our partners according to their feedback. As part of that process, we will finalize and interpret our needs assessment and correlate that data with the information gained from the 2015 meeting of Extension forestry and wood products specialists in Cocodrie, Louisiana. We will use results from these needs assessments to guide the agenda for a meeting of southern Extension natural resource specialists scheduled for October, 2017. Information from the needs assessment and feedback from the Extension unit leaders indicated that a larger southeastern Extension

natural resource meeting would be beneficial for the region. The meeting agenda will address important topics mentioned in the needs assessment. It will include strategic planning sessions on needs for regional programming within those topic areas while coordinating work to develop solutions. Additionally, this meeting will provide opportunities to connect specialists working on similar programs and resources for new hires.

SREF staff will continue to travel within the region fostering connections and collaboration between our partners in the southeastern United States while providing leadership in technology and technology transfer for natural resource Extension. In addition, we will continue to aid our partner natural

resource Extension programs in finding new opportunities and pursuing successful collaborations with the 13 Southern Land-grant Universities; state and federal forestry and natural resources organizations; NGOs; and other regional forestry and natural resource professionals.

We anticipate that 2017 will be a year in which our greatly expanded capacity will enhance our ability to address the needs of our partners at the 13 Southern Land-grant Universities to meet regional challenges in forestry and natural resources. We invite you to offer suggestions, expertise, and ideas. With your continued involvement and support, we will keep our region connected to an ever more enlightened natural resources community in 2017 and beyond.

With over **5,000,000 family forest owners** controlling **200,000,000 acres**, Extension's role is more important **now than ever.**

By working together **across state and discipline lines**, we can **increase** our effectiveness, relevance, visibility and **impact.**

*The following list of publications and resources involved one or more SREF staffers or students.*

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### Book Chapters:

Nowak, J.T., Klepzig, K.D., **Coyle, D.R.**, Carothers, W.A., & Gandhi, K.J.K. 2016. Chapter 5, p. 73-88. Southern pine beetles in central hardwood forests: frequency, spatial extent, and changes to forest structure. In: Natural Disturbances and Historic Range of Variation in Central Hardwood Forests. C.H. Greenberg and B.S. Collins (eds.). Springer Publishers, New York. 400 p.

### Journal Articles:

**Boby, L.A., Hubbard, W.G.**, Megalos, M., and Morris, H.L.C. (2016). Southern Foresters' Perceptions of Climate Change: Implications for Educational Program Development. Journal of Extension, volume 54, number 6.

**Coyle, D.R.**, Green G.T., Barnes, B.F., Klepzig, K.D., Nowak, J.T., & Gandhi, K.J.K. (2016). Landowner and manager awareness and perceptions of pine health issues and southern pine management activities in the southeastern United States. J. For. 114: 541-551.

Haase, D. L., & **Drummond, D. J.** (2016) Useful Mobile Applications for Nursery and Field Personnel. Tree Planters' Notes Volume 59, number 2. Retrieved February 3, 2017, from <https://rngr.net/publications/tpn/59-2>

Helbig, C.E., **Coyle, D.R.**, Klepzig, K.D., Nowak, J.T., and Gandhi, K.J.K. (2016). Colonization dynamics of subcortical insects on forest sites with relatively stressed and unstressed loblolly pine trees. J. Econ. Entomol. 109: 1729-1740.

Henderson, J. E., Joshi, O., Tanger, S., **Boby, L., Hubbard, W.**, Pelkki, M., Tappe, P. (2016). Standard Procedures and Methods for Economic Impact and Contribution Analysis in the Forest Products Sector. Journal of Forestry. Retrieved February 3, 2017, from doi:10.5849/jof.16-041

Morris, H.L.C., Megalos, M.A., **Hubbard, W.G. & Boby, L.A.** (2016). Climate Change Attitudes of Southern Forestry Professionals: Outreach Implications. Journal of Forestry, volume 114, number 5, pp. 532-540.

Pfammatter, J.A., **Coyle, D.R.**, Gandhi, K.J.K., Hernandez, N., Hofstetter, R.W. Moser, J.C and K.F. Raffa, K.F. (2016). Structure of phoretic mite assemblages across subcortical beetle species at a regional scale. Environ. Entomol. 45: 53-65.

Zalesny, R.S. Jr., Stanturf, J.A., Gardiner, E.S., Bañuelos, G.S., Hallett, R.A., A. Hass, A., C.M. Stange, C.M., Perdue, J.H., Young, T.M., **Coyle, D.R.**, & Headlee, W.L. (2016). Environmental technologies of woody crop production systems. Bioenerg. Res. 9: 492-506.

Zalesny, R.S. Jr., Stanturf, J.A., Gardiner, E.S., Perdue, J.H., Young, T.M., **Coyle, D.R.**, Headlee, W.L., Bañuelos, G.S., & Hass, A. (2016). Ecosystem services of woody crop production systems. Bioenerg. Res. 9: 465-491.

### Peer-Reviewed Extension Publications and Fact Sheets:

**Boby, L.A.**, Hitchner, S., **Hubbard, W.G.**, Dasmopahaptra, S., Radics, R. & Schelhaus, J. (2016). Public Perceptions of Bioenergy. SREF-BE-003. Retrieved from: <http://www.sref.info/resources/publications/public-perceptions-of-bioenergy>

**Boby, L.A., Coyle, D. R., Hubbard, W.G.**, & McDonald, C. (2016). Hybrid poplar in the Southeastern United States. SREF-BE-008. Retrieved from <http://www.sref.info/resources/publications/hybrid-poplar-in-the-southeastern-united-states>

**Boby, L.A., Hubbard, W.G.**, & McDonald, C. (2016). Switchgrass as a feedstock for bioenergy in the Southeast. SREF-BE-011. Retrieved from <http://www.sref.info/resources/publications/switchgrass-as-a-feedstock-for-bioenergy-in-the-southeast>

**Campbell, J.H.** (2016). Communities benefit from energy-saving trees video series. Retrieved January 23, 2017, from <http://articles.extension.org/pages/73550/communities-benefit-from-energy-saving-trees-video-series>

**Campbell, J.H.** (2016). Tree establishment in the urban environment. Retrieved January 23, 2017, from <http://articles.extension.org/pages/73554/tree-establishment-in-the-urban-environment-video-series>

**Campbell, J.H.** (2016). Tree selection and placement. Retrieved January 23, 2017, from <http://articles.extension.org/pages/73840/tree-selection-placement-video-series>

**Campbell, J.H.** (2016). Tree pests in the urban environment. Retrieved January 23, 2017, from <http://articles.extension.org/pages/73860/tree-pests-in-the-urban-environment>

**Campbell, J.H.** (2016). Tree placement and planting. Retrieved January 23, 2017, from <http://articles.extension.org/pages/73966/tree-placement-and-planting-video-series>

**Campbell, J.H.** (2016). Prescribed burn success at the wildland urban interface in Athens, Georgia. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Texas Extension Agent training in prescribed fire. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Media, partnership, and prescribed fire restore wildlife habitat near Lake James, North Carolina. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Ecosystem Restoration team assists with prescribed fire at north Florida national wildlife refuge. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Creating a fire resilient landscape in the Pisgah National Forest. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Western Gulf Region promotes longleaf pine restoration through prescribed fire workshop. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Lone Star State crew enhances wildland fire response in Texas. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). Wildland fire interagency partnership at Rappahannock River Valley NWR. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H.** (2016). AmeriCorps wildland firefighter training. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

**Campbell, J.H., Lighthall, K., & Wood, G.** (2016). National Cohesive Wildland Fire Management Strategy: Overview for Extension professionals. Retrieved January 23, 2017, from <http://www.southernwildfire.net/docs/Cohesive%20Fire%20Strategy%20Extension%20Overview.pdf>

**Campbell, J.H., Lighthall, K., & Wood, G.** (2016). National Cohesive Wildland Fire Management Strategy: Wildland Fire Extension resources & activities. Retrieved January 23, 2017, from <http://www.southernwildfire.net/docs/Cohesive%20Strategy%20Extension%20Resources%20-%20Activities.pdf>

**Campbell, J.H. & D.R. Coyle.** (2016). Littleleaf disease: biology, ecology, and management in southern pines. Southern Regional Extension Forestry Publication SREF-FH-007.

**Campbell, J.H., & Coyle, D. R.** (2016). Littleleaf disease: Biology, ecology, and management in southern pines. SREF-SLP-019. 10p. Retrieved from <http://shortleafpine.net/growing-shortleaf-pine/forest-health/diseases-and-pests/littleleaf-disease>

**Coyle, D. R. & M. Megalos.** (2016). Promoting a healthy forest on your land. Southern Regional Extension Forestry Fact Sheet SREF-FH-001.

**Coyle, D.R., A.B. Self, J.D. Floyd, & J.J. Riggins.** (2016). Ips bark beetles in the southeastern U.S. Southern Regional Extension Forestry Fact Sheet SREF-FH-002.

Cser, H. & **Boby, L.A.** (2016). Bioenergy in the Southeast: Current and past policies driving markets. SREF-BE-004. Retrieved from: <http://www.sref.info/resources/publications/bioenergy-in-the-southeast-current-and-past-policies-driving-markets-2>

Cser, H. & **Boby, L.A.** (2016). Biomass Feedstock Characteristics. SREF-BE-005. Retrieved from: <http://www.sref.info/resources/publications/biomass-feedstocks-characteristics-1>

Cser, H. & **Boby, L.A.** (2016). Technologies that produce electricity, heat, and fuel from biomass feedstocks. SREF-BE-006. Retrieved from: <http://www.sref.info/resources/publications/technologies-that-produce-electricity-heat-and-fuel-from-biomass-feedstocks>

Dreaden, T.J., J.A. Smith, M.M. Cram, & **D.R. Coyle.** (2016). Biology, diagnosis, and management of Heterobasidion root disease of southern pines. Southern Regional Extension Forestry Publication SREF-FH-004.

Doughty, S., & **Campbell, J.H.** (2016). Firewise success at Holiday Island, Arkansas. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

Haavik, L.J. & **D.R. Coyle.** (2016). The Sirex woodwasp, Sirex noctilio: ecology, potential impact, and management in the southeastern U.S. Southern Regional Extension Forestry Publication SREF-FH-003.

Hastings, R., & **Campbell, J.H.** (2016). Fire Learning Trail. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

Hughes, M.A., J.A. Smith, & **D.R. Coyle.** (2016). Biology, ecology, and management of laurel wilt and the redbay ambrosia beetle. Southern Regional Extension Forestry Publication SREF-FH-006.

Jacobson, M., **Boby, L.A., Hubbard, W.G. & McDonald, C.** (2016). Miscanthus as a feedstock for bioenergy in the Southeast. SREF-BE-009. Retrieved from: <http://www.sref.info/resources/publications/miscanthus-as-a-feedstock-for-bioenergy-in-the-southeast>

Pile, L.S., N.J. Loewenstein, G.S. Wheeler, & **D.R. Coyle.** 2016. Chinese tallowtree biology and management in southeastern U.S. forests. Southern Regional Extension Forestry Publication SREF-FH-005.

Wimberley, J., & **Campbell, J.H.** (2016). Increasing prescribed fire capacity through community-led prescribed burn association. Retrieved January 23, 2017, from <http://www.southernwildfire.net/success-stories>

### New Websites:

**Coyle, D. R., Costa, L., & Drummond, D.** (2016). Southern Forest Health. <http://southernforesthealth.net>

**Geller, D., Costa, L., & Drummond, D.** (2016). The Climate Learning Network. <http://www.climatelearning.net>

**Geller, D., Costa, L., & Drummond, D.** (2016). Climate, Forests, & Woodlands. <http://climateforestswoodlands.org>

Hernandez, G., & **Drummond, D.** (2016). Restauramerica. <http://restauramerica.sref.info>



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## Video Titles:

*Blending architecture with the urban forest*  
*Community involvement with urban forestry*  
*Finding refuge in the urban environment*  
*Trees for comfort in public places*  
*Urban forests role in heat reduction*  
*Staking and guying landscape trees*  
*Watering trees in the urban environment*  
*Mulching trees in the urban environment*  
*Controlling weeds around urban landscapes*  
*Establishing trees for energy conservation*  
*Selecting diverse trees for sustainability in the urban environment*  
*Identifying strong, structurally sound trees*  
*Journey of a nursery tree from the field to balled and burlapped*  
*Selecting a balled and burlapped shade tree at the nursery*  
*Selecting a balled and burlapped ornamental tree at the nursery*  
*Selecting a container grown shade tree at the nursery*  
*Tree placement and spacing for energy savings*  
*An introduction to pests in the urban landscapes*  
*Selecting pest-resistant landscape plants*  
*Insect and mite pests of landscape plants*  
*Identifying non-harmful and beneficial insects in the urban landscape*  
*Methods of pesticide application in the urban landscape*  
*Healthy trees and landscapes help save energy*  
*Avoiding soil and root disturbance during construction*  
*Site assessment prior to planting in the urban environment*  
*Preparing and planting a balled and burlapped tree*  
*Preparing and planting a container grown tree*





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# BUILDING CONNECTIONS

IN THE SOUTHERN REGION



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