



Your Source for Southern Research Station Science



FIRE

QUIC-Fire is a new tool that rapidly predicts complex **fire behavior** and shows promise for designing and evaluating burn plans.

A recent study measured **effects of fire and drought** on forest structure and composition. Learn more about the Arkansas case study and implications for restoration in this [publication](#).

Recent research modeled the factors that contribute to hot moments—crucial periods for **community recovery and adaptation after wildfires**.



RESTORATION

A new [online course](#) introduces the basic biology and silvics of the **American chestnut tree**, plus the factors that led to its demise.

At the **20th Biennial Southern Silvicultural Research Conference**, researchers, silviculturists, and practitioners exchanged latest findings on the ecology and management of southern forests. Explore more than 50 papers from the conference in [GTR-SRS-253](#).

Regenerating some oak and pine species across the South is helped by the **co-production of fire science with partners** in the National Forest System. Learn more in this [article](#).



PRODUCTS + MARKETS

FIA has innovative ways to explore some of their reports and summaries: the award-winning [One-Click Factsheet](#) with state-level forest conditions and changes and the [National Timber Product Outputs](#) with recent estimates of industrial and nonindustrial roundwood uses.

Explore current trends in U.S. forest products consumption, production, and trade in a technical report that supports the **2020 RPA Assessment** ([GTR-SRS-258](#)).

SRS researchers tested a new use for **site prep tractors: installing fire lines**. Read more in this [CompassLive](#) article.

Two studies examined the characteristics of forest landowners who enroll in **state programs to lower their property taxes**. Key findings and links to the publications are in this [CompassLive](#) article.



FOREST HEALTH

[GTR-SRS-255](#) synthesizes the current state of the knowledge of **major weather disturbances and their interactions** with forest pests and diseases.

The **torreya fungus** is devastating the critically endangered Florida torreya tree. [New research](#) is developing a genetic test to identify the fungus.

A new [book synthesizes invasive species science](#), management, and impacts. This [CompassLive](#) article summarizes SRS-led chapters.

Researchers, tree breeders, and forest managers focused on restoring tree species imperiled by invasive pests by **developing and deploying resistant trees**. Explore the 95 presentations shared at the workshop in [GTR-SRS-252](#).



WATER

How do **fire and drought impact water** quantity and quality? SRS researchers review impacts from the 2016 southern Appalachian wildfires in this [publication](#).

Climate change means **larger rainfall events** and increased flood frequency. SRS researchers explore road-crossing drainage structures to **accommodate higher flows** in this [publication](#).

Dams have both costs and benefits for **freshwater crayfish populations**. Read a review of the complex choices for conservation planning in this [publication](#).

[GTR-SRS-259](#) is a new manual that describes the **impacts of soil salinization** in coastal areas and includes adaptation measures for landowners.



FURTHER + MORE

Browse a collection of SRS **research, collaboration, and tech transfer** highlights from 2020 in this [online gallery](#).

SRS has several **shared research projects with Native American partners**, ranging from the sustainability of culturally important plants to water quality and fire management. Learn about an ongoing partnership with the **Eastern Band of Cherokee Indians** in this recorded [webinar](#).

This year, SRS will commemorate **100 years of Forest Service research in the South** with a collection of narratives and photographs about the history of the Appalachian and Southern Forest Experiment Stations – their people, places, and programs. Learn more about these centennial projects and [how to submit](#) your stories or historic photos.

“Our Station employees are dedicated to discovery, collaboration, and customer service. An important part of our work is sharing our findings with land managers, other research communities, and the public.

—Rob Doudrick
Station Director

Did you know that SRS has a [video collection](#)? Watch our scientists describe their projects and see science in action. Topics include American chestnut restoration in the field and many others.

“These videos showcase American chestnut—its ecology, history, and the research partnerships that aim to restore it. I wanted to show how research is shaping the future of American chestnut restoration.

—Stacy Clark
Research Forester



Stacy Clark

 Publications

 Webinars

 CompassLive

 Events



What do you think of this issue of Research Plots? Share your feedback [here](#).

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Photo: *Appalachian mixed hardwoods*, Chris Evans, University of Illinois, Bugwood.org