

22nd Biennial Southern Silvicultural Research Conference

Welcome Session Ballroom B – March 21, 2023

7:00 – 8:30 am	Continental Breakfast – Ballroom B
8:00 – 9:30 am	Welcome and Plenary Session in Ballroom B
Brian Oswald	22 nd Biennial Southern Silvicultural Research Conference Co-chair
Steve Westbrook	Interim President, Stephen F. Austin State University
Hans Williams	Dean, Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University
Eric Taylor	Extension Specialist and Silviculturalist IV Texas A&M Forest Service
TBA	Texas Forestry Association
9:30 – 10:00 am	Break

Tuesday Concurrent Session 1 in Ballroom A – March 21, 2023

Field Trip Sites: Brian Oswald Moderator

- 10:00 - 10:30 am Silviculture at the Boggy Slough Conservation Area – Management to Promote Conservation and Research. S. Jack, R. Sanders
- 10:30 - 11:00 am STMicroelectronics – SFASU Carbon Sequestration Reforestation. J. Grogan, K Farrish, H. Williams, B. Oswald
- 11:00 – 11:30 Shortleaf Pine Restoration Project on the I.D. Fairchild State Forest, Texas A&M Forest Service. J. Ellis

11:30 – 1:30 pm Lunch on own

Growth and Yield and Modeling 1: Eric Taylor Moderator

- 1:30 - 2:00 pm An integrated system approach to model tree and stand growth. Q. Cao
- 2:00 - 2:30 pm A stand-level growth and yield model system for shortleaf pine plantations in the western half of the Southeastern United States. C. VanderSchaaf
- 2:30 - 3:00 pm A novel, single-tree measure of growing stock based on volume growth. T. Dean
- 3:00 – 3:30 pm **Break**

Growth and Yield and Modeling 2: Eric Taylor Moderator

- 3:30 - 4:00 pm Biomass estimates for Natural-Origin Hardwood Saplings of Southeastern Arkansas. M Bataineh
- 4:00 - 4:30 pm* A Growth and Yield System of Differential Equations for Slash Pine Plantations Including Response to Silvicultural Treatments. L. Ramirez Quitero, M. Cubillos, C. Rodreigo, B. Bullock
- 4:30 - 5:00 pm* DBH estimation based on LiDAR point clouds at Stand Level of Loblolly Pine Plantations. C. Talmage, Y. Weng, Y. Zhang, J. Grogan
- 5:00-5:30 pm* Quantifying aboveground biomass using remote sensing and ground Measurements for mixed-hardwood forests. S. Jha, S. Yang, S. Hale, T. Johnson.
- 6:00 – 8:00 pm Poster Session and Reception: complementary hors d’oeuvres and cash bar**

* Denotes student presentation

Tuesday Concurrent Session 2 in Ballroom B – March 21, 2023

Fire 1: Mohammad Bataineh Moderator

- 10:00 - 10:30 am Predicting fire intensity using vegetation, fuel, and weather variables on the William B. Bankhead National Forest, Alabama. J. Craycroft, C. Schweitzer
- 10:30 – 11:00 am Future trends in dead fuels and implications for prescribed fire in the southern United States. Y. Liu, H. Tian, B. Tao, J. Yang
- 11:00 - 11:30 am Prescribed Fire Barriers and Solutions for Managing Sustainable Forests: Silvicultural Cocktails. C. Schweitzer, D. Dey, A. Brandon.

11:30 – 1:30 pm Lunch on Own

Fire 2: Callie Schweitzer Moderator

- 1:30 - 2:00 pm Linking fire behavior to effects - use of pyrometers and thermocouples. M. Bataineh, B. Portner, M. Pelkki, R. Ficklin
- 2:00 - 2:30 pm A preliminary analysis of decomposition-driven changes in litter flammability. M. Varner, J. Kane, T., Shearman, J. Kreye, H. Alexander
- 2:30 - 3:00 pm* Functional Morphology of Shortleaf Pine (*Pinus echinata* Mill) Fire-Adapted Traits. B. Bloodwood, G. Wang

3:00 – 3:30 pm Break

Fire 2: Callie Schweitzer Moderator

- 3:30 - 4:00 pm* Determinants of fire intensity in understory vegetation of pine flatwoods. S. Lapalikar, J. Vogel, D. Cosenza, E. Broadbent, B. Baiser, A. Sharma, R. Crandell
- 4:00 - 4:30 pm* Influences of overstory pyrophytic and mesophytic trees and understory solar irradiance on leaf litter and woody debris fuel moisture retention. L. Goncalves Lazzaro, H. Alexander, J. Cannon, M. Aspinwall
- 4:30 - 5:00 pm Spatial factors in post-fire tree mortality – A preliminary analysis. T. Shearman, M. Varner, J. Willis
- 5:00 – 5:30 pm* Disturbing the Peace: Bringing Back Natural Disturbance for Oak Woodlands and Savannas in the Eastern US. M. Berry, P. Keyser, A. Vander Yacht, C. Henderson

6:00 – 8:00 pm Poster Session and Reception: complementary hors d'oeuvres and cash bar

* Denotes student presentation

Tuesday Concurrent Session 3 Banita Room – March 21, 2023

Hardwood 1: Brian Lockhart Moderator

- 10:00 – 10:30 am Advancing Established White Oak (*Quercus alba*) Reproduction Through a Midstory Removal. C. Dugger, W. Clatterbuck
- 10:30 - 11:00 am Timing of dormant season inundation is crucial to flood effects on bottomland red oaks. B. Babst, R. Sample, J. Cook
- 11:00 - 11:30 am The response of willow oak (*Quercus phellos*) seedling roots to fall environmental cues and winter flooding. B. Babst, J. Kressuk, T. Collins, E. Gardiner, M. Bataineh

11:30 – 1:00 pm Lunch on Own

Hardwood 2: Brian Lockhart Moderator

- 1:30 - 2:00 pm* Factors affecting oak regeneration in bottomland hardwood forests in northern Missouri. I. Hayford, B. Knapp.
- 2:00 - 2:30 pm* Leaf area index (LAI) across eastern cottonwood and hybrid poplars and its relationships with productivity and water use efficiency under coppicing and non-coppicing management in the southeastern United States. J. Wang, H. Renninger
- 2:30 - 3:00 pm* Characterization of community structure and structural diversity to assess evidence of forest type shifts prior to slough flow restoration treatments in the Apalachicola River floodplain. J. Tracy

3:00 – 3:30 pm Break

Shortleaf Pine: Don Bragg Moderator

- 3:30 - 4:00 pm Site Preparation for shortleaf pine cluster planting and restoration of shortleaf pine-hardwood mixtures: First year results. D. Clabo, M. Hinson.
- 4:00 - 4:30 pm* Sustainable pathways for shortleaf pine restoration in uncertain climates C. Iwamoto, C. Seigert, J. Granger, K. Poudel, A. Polinko, Z. Freedman
- 4:30 – 5:00 pm* Insight into the roles of prescribed fire and hardwood competition in the survival and growth of shortleaf pine throughout its early life. H. Filligim, B. Knapp, J. Kabrick
- 5:00 – 5:30 pm Fuel Load Reduction and Woodland Restoration Treatments in the Ouachita Region of Arkansas. K. Cunningham
- 6:00 – 8:00 pm Poster Session and Reception: complementary hors d'oeuvres and cash bar**

* Denotes student presentation

Wednesday, March 22, 2023

7:00 – 8:00 am Continental Breakfast – Ballroom B

Wednesday Concurrent Session 4 in Ballroom A – March 22, 2023

Restoration and Reclamation Conner Fristoe Moderator

8:00 – 8:30 am Some silvicultural implications of updating the Southern Region’s old-growth guidance. D. Bragg

8:30 – 9:00 am Reconstructing stand development patterns of oak-pine mixedwoods at Boggy Slough Conservation Area. B. Knapp, S. Jack

9:00 – 9:30 am* Evaluating the Trajectory of Secondary Vegetational Succession on Clear-Cut Timber and Strip Mined Sites. I. Kennedy, M. Mount, W. Clatterbuck, D. Buckley.

9:30 – 10:00 am Break

Loblolly Pine 1 Conner Fristoe Moderator

10:00 – 10:30 am* Branch growth and mortality as influenced by light attenuation. A. Majekobaje, T. Dean

10:30 – 11:00 am* Characterizing spatial dependencies of competing vegetation in thinned loblolly pine stands. J. Young, B. Brunson, C. Montes, J. Rheney

11:00 – 11:30 am* Thinning and Three Genotypes effects on DBH, Total Height, and Height to Live Crown, Volume, and Weight for Loblolly Pine. S. Flue, G. Holley, J. Adams, M Sayer, M. Tyree, M Blazier.

11:30 – 1:30 pm Lunch on Own

Loblolly Pine 2 Conner Fristoe Moderator

1:30 - 2:00 pm Climate-Smart Forestry and Its Implication on Southern Silviculture. G. Wang

2:00 - 2:30 pm Thinned young Pinus taeda stands outperform thinned older stands. T. Albaugh, D. Carter, R. Cook, R. Rubilar, O. Campoe

2:30 - 3:00 pm Height, Diameter and Volume Comparison of Three Species of West Gulf Coastal Plain Provenance Pines after seven growing seasons in East Texas. H. Williams, J. Gorgan, B. Oswald, J. Stovall, Y. Weng

3:00 - 3:30 pm Break

* Denotes student presentation

Hardwoods 3: Brian Lockhart Moderator

- 3:30 – 4:00 pm Planted white oak (*Quercus alba*) respond to spacing density and orientation in gap openings in the Blue Ridge Mountains of North Carolina. S. Clark, T. Keyser, S. Schlarbaum, A. Saxton
- 4:00 - 4:30 pm Multi-phased shelterwood on the Daniel Boone National Forest, Kentucky, tests herculean effort to regenerate oak. C. Schweitzer, J. Calvert, S. Clark, J. Royse
- 4:30 - 5:00 pm A look back on 26-years of hardwood development after afforestation on flood-prone agriculture lands in the Louisiana delta. J. Adams, W. Patterson.
- 5:00 – 5:30 pm An Evaluation of Species Composition and Stand Structure on Patch Cut vs. Larger Clearcut Stands after 30+ Years at Natchez Trace State Forest in West Tennessee. W. Clatterbuck, J. Biggerstaff
- 5:30 – 6:00 pm White oak sustainability – what’s the (under)story? L. Vickers, B. Knapp
- 7:00 – 10:00 pm Social at Fredonia Brewery**

Wednesday, March 22, 2023

7:00 – 8:00 am Continental Breakfast – Ballroom B

Wednesday Concurrent Session 4 in Ballroom B – March 22, 2023

Intermediate Treatments/Competition Control 1: Joshua Adams Moderator

- 8:00 – 8:30 am Aminocyclopyrachlor cut stem applications compared to standard herbicides for Eucalyptus control. P. Minogue, K. Lorentz
- 8:30 – 9:00 am A Comparison of Garlon 4, Garlon XRT, Vista, Vastlan, Chopper GEN2, and Terravue in Site Preparation Applications. A. Self, J. Ezell, A. Ezell
- 9:00 – 9:30 am A Comparison of Glufosinate Products for the Control of Natural Pines. J. Ezell, A. Self, A. Ezell.

9:30 – 10:00 am Break

Intermediate Treatments/Competition Control 2: Wayne Clatterbuck

- 10:00 – 10:30 am* Seasonal Light Response Curves of Ligustrum sinense (Chinese privet): a test of extended leaf phenology. T. Markus, L. Pile-Knapp, D. Cole, G. Wang
- 10:30 – 11:00 am Mid-Rotation Brush Control in a Loblolly Pine Plantation Using Chopper GEN2 and Selected Glufosinate Products. A. Ezell, J. Ezell, A. Self
- 11:00 – 11:30 am Evaluating dormant-season herbicide applications for the control of Chinese Privet (Ligustrum sinense). L. Pile-Knapp, K. Vaughn, G. Wang

11:30 – 1:30 pm Lunch on Own

Intermediate Treatments/Competition Control 3: Andy Ezell Moderator

- 1:30 - 2:00 pm Effects of fertilization and vegetation control application under different thinning intensities in the southeast US. C. Montes, M. Wang, B. Bullock, D. Zhao
- 2:00 - 2:30 pm Use of pre-emergent herbicides (Clopyralid and Imazamox) for seedling release in an oak shelterwood. S. Peairs
- 2:30 - 3:00 pm Use of post-emergent herbicides (Indaziflam, Sulometuron Methyl, and Flumioxazin) for seedling release in an oak shelterwood. S. Peairs

3:00 - 3:30 pm Break

* Denotes student presentation

Management and Silvics: Andy Ezell Moderator

- 3:30 – 4:00 pm Role of root system structure in sustained growth among loblolly pine genotypes. M. Sayer, K. Wharton, M Tyree, M. Blazier, J. Adams, B Wolfe
- 4:00 - 4:30 pm Managing Feral Hogs: Perspectives of Forest Landowners in Arkansas, Louisiana, and East Texas. N. Tian, J. Gan, G. Holley
- 4:30 - 5:00 pm Natural Plant Succession of a Dozer Line in Arkansas. V. McDaniel, G. De Jong
- 5:00 – 5:30 pm Updating the Silvics of North America: Progress, Timeline, and Involvement. S. McNulty, C. Stelly.

7:00 – 10:00 PM Social at Fredonia Brewery

Wednesday, March 22, 2023

7:00 – 8:00 am Continental Breakfast – Ballroom B

Wednesday Concurrent Session 5 in Banita Room – March 22, 2023

Ecosystem Services: Tom Dean Moderator

- 8:00 – 8:30 am Impact of Pine Species Identity on Woodland Ecosystem Services. J. Willis, M. Varner, J. Cannon, J., Puhlick, D. Bragg, C. Schalk
- 8:30 – 9:00 am* Assessment of trade offs among ecosystem services of wetland researve easements. T. Corbin, M. Bataineh, B. Babst, I. Hung.
- 9:00 – 9:30 am* Evaluating Stem and Branch Characteristics of Five-Year-Old Sonderegger Pine Saplings. K. Shoemaker, D. Jackson, J. Adams

9:30 – 10:00 am Break

Longleaf Pine 1: Brian Oswald Moderator

- 10:00 – 10:30 am* Spatial patterns of disturbance and intra-stand structure in a longleaf pine (*Pinus palustris*) woodland. D. Phillips, J. Goode, J. Hart
- 10:30 – 11:00 am* Does longleaf pine cone production correlate with seed production, size, And germination rate? R. Nations, H. Alexander, J. Willis, M. Aspinwall, J. Cannon
- 11:00 – 11:30 am* Effects of fertilization and endophyte application on growth of planted longleaf pine. B. Doughty, A. Polinko.

11:30 – 1:30 pm Lunch on Own

Longleaf Pine 2: Pat Minogue Moderator

- 1:30 - 2:00* pm The Influence of Slash Management Practices on Water and Nutrient Dynamics in Longleaf Pine Forests. J. Murray, D. Hagan, P. Hiesl, R. Baldwin
- 2:00 - 2:30 pm Silvicultural strategies for converting longleaf pine plantations to multi-aged longleaf pine stands. G. Nyen, A. Polinko, J. Puhlick.
- 2:30 - 3:00 pm Tropical cyclones stimulate cone production in longleaf pine woodlands. J. Cannon, B. Rutledge, J. Puhlick, J. Willis, D. Brockway

* Denotes student presentation

3:00 - 3:30 pm Break

Longleaf Pine 3: Pat Minogue Moderator

3:30 – 4:00 pm Silvicultural strategies for promoting longleaf pine recruitment in multi-aged stands. J. Puhlick, B. Knapp, I. Goldberg, B. Rutlledge, R. Taylor, J. Willis

4:00 - 4:30 pm Is longleaf pine an intolerant species? It's comparison with other southern pines and southern hardwoods. A. Sharma, J. Willis

4:30 - 5:00 pm Survival of longleaf pine seedlings planted under different canopy reduction treatments in a slash pine-turkey oak stand. J. Vogel, J. Shabaga, S. Lapalikar, A. Sharma

5:00 – 5:30 pm Prescribed Burning Has Little Effect on Longleaf Pine Wood Quality. E. Andrews, J. Willis

5:30 – 6:30 pm Ethics Training: Brian Lockhart

7:00 – 10:00 pm Social at Fredonia Brewery