



6th

Southern Forestry and Natural Resources GIS Conference

March 24 – 26, 2008
Orlando, Florida



THE UNIVERSITY OF GEORGIA

CENTER FOR CONTINUING EDUCATION





6th Southern Forestry and Natural Resources GIS Conference

Conference Program

Conference Description and Objectives

The Southern Forestry and Natural Resources GIS Conference is a series of biennial meetings that have been hosted by the Daniel B. Warnell School of Forestry and Natural Resources, and the Georgia Center for Continuing Education Conference Center & Hotel, University of Georgia. The Conference generally includes topics related to the use of GIS and other geospatial technologies in forestry and natural resource management. The objective of the conference is to bring together managers and scientists to discuss research and issues related to forestry and natural resources using geospatial technologies in the southern United States and beyond. The 6th Southern Forestry and Natural Resources GIS Conference includes presentations pertaining forest inventory, wildlife habitat analysis and assessment, forest management, aquatic systems, landscape ecology, land use analysis, remote sensing and image analysis, species composition and distribution, and forest extension and education.

We are pleased to announce that the 6th Southern Forestry and Natural Resources GIS Conference includes two keynote speakers as well. Dr. David Evans, from Mississippi State University, will discuss his extensive experience with LIDAR applications in natural resource management. And Dr. Gil Pontius, from Clark University, will provide a synthesis of issues related to data accuracy assessments.



Conference Program in Brief

Monday, March 24

4:00 - 7:00 PM Registration
6:00 - 8:00 PM Social Mixer (Room A/B)

Tuesday, March 25

7:00 - 8:00 AM Registration
8:00 - 8:10 AM Welcome (Room D/E)
8:10 - 8:55 AM Keynote Speaker - Dr. David Evans, Mississippi State University
9:00 - 10:30 AM Concurrent Sessions
 Session 1: Forest Inventory
 Session 2: Wildlife Habitat Analysis and Assessment I
10:30 - 10:45 AM Break (Room A/B)
10:45 - 12:15 PM Concurrent Sessions
 Session 1: Forest Management I
 Session 2: Wildlife Habitat Analysis and Assessment II
12:15 - 1:15 PM Lunch (furnished) (Room A/B)
1:15 - 3:15 PM Concurrent Sessions
 Session 1: Forest Management II
 Session 2: Aquatics / Management
3:15 - 3:30 PM Break (Room A/B)
3:30 - 5:30 PM Concurrent Sessions
 Session 1: Landscape Ecology and Land Use Analysis
 Session 2: Remote Sensing and Image Analysis I
6:30 - 8:00 PM Poster Session, Reception (Room A/B)

Wednesday, March 26

8:00 - 8:45 AM Keynote Speaker - Dr. Gil Pontius, Clark University (Room D/E)
8:45 - 9:00 AM Break (Room A/B)
9:00 - 10:00 AM Concurrent Sessions
 Session 1: Species Composition and Distribution I
 Session 2: Forest Extension and Education I
10:00 - 10:15 AM Break (Room A/B)
10:15 - 11:45 AM Concurrent Sessions
 Session 1: Species Composition and Distribution II & Forest Extension II
 Session 2: Remote Sensing and Image Analysis II
11:45 - 12:15 PM Closing Remarks, Awards, Door Prizes (Room D/E)



Acknowledgements

Conference Sponsors

Cooperative Extension Service - Southern Regional Extension Forestry
Mississippi State University
University of Kentucky
USDA Forest Service, Southern Region
University of Georgia, Center for Continuing Education
University of Georgia, Daniel B. Warnell School of Forestry and Natural Resources

Conference Chair

Pete Bettinger, University of Georgia (pbettinger@warnell.uga.edu)

Program Chair

Songlin Fei, University of Kentucky (songlin.fe@uky.edu)

Sponsorship Inquiries and Logistics

Ben Jackson, University of Georgia, Center for Continuing Education
(ben.jackson@georgiacenter.uga.edu)
Holly Blanchard, University of Georgia, Center for Continuing Education
(holly.blanchard@georgiacenter.uga.edu)

Conference Planning Committee

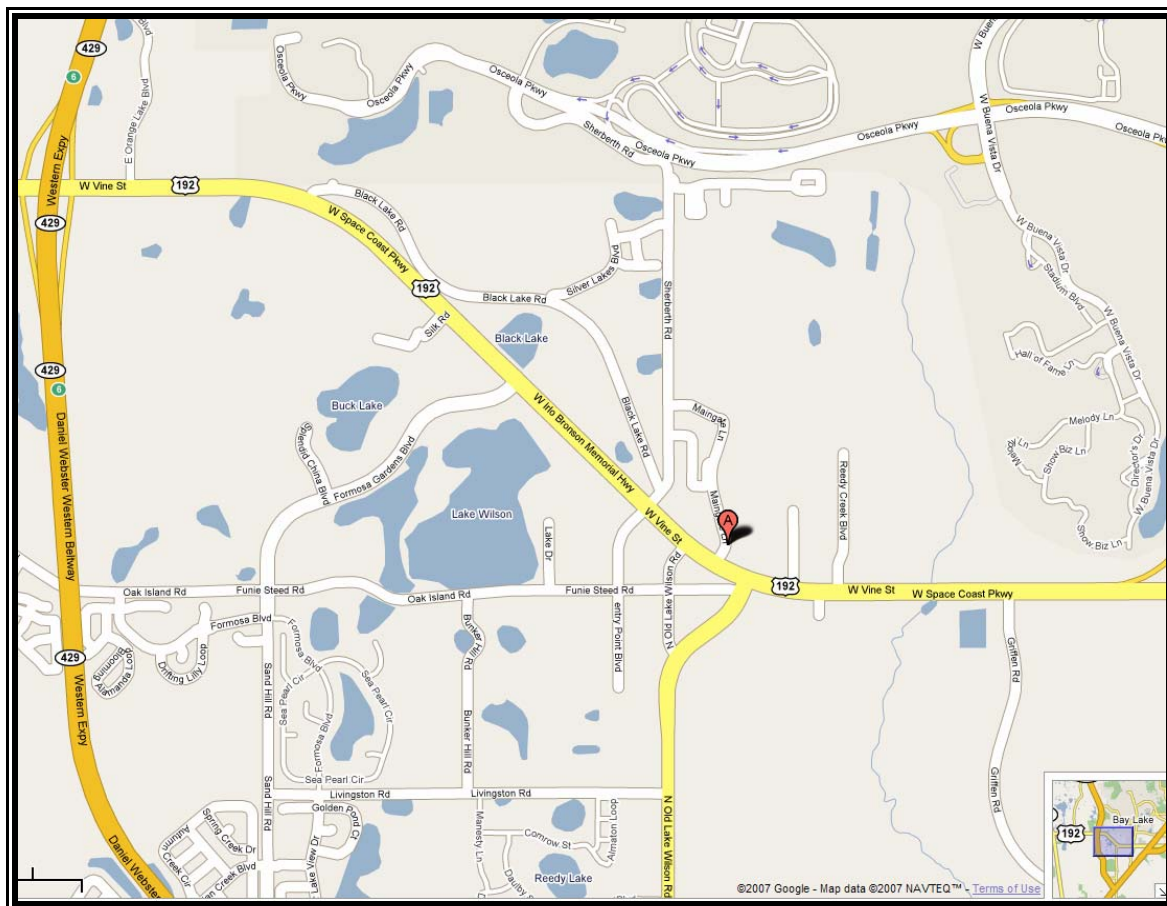
Jason Drake, USDA Forest Service, Southern Region
John Kushla, Mississippi State University
William Hubbard, Southern Region Extension Forestry, University of Georgia
Jeff Hepinstall, University of Georgia
Nate Nibbelink, University of Georgia
Krista Merry, University of Georgia



Information for Attendees

Conference location

Radisson Worldgate Resort (www.worldgateresort.com)
3011 Maingate Lane, Kissimmee, FL 34747
(407) 396-1400



Concurrent Session II: Wildlife Habitat Analysis and Assessment II (Room D/E)

- 10:45 - 11:15 AM *Investigating Domestic Cattle Habitat Selection on South Florida Rangelands.* Jobes et al.
- 11:15 - 11:45 AM *Landscape Conservation of a Recolonizing Black Bear Population in Southeastern Kentucky.* Unger et al.
- 11:45 - 12:15 PM *Modeling Northern Bobwhite Abundance at a Landscape Level: A Preliminary Analysis.* Martin et al.

12:15 - 1:15 PM Lunch (furnished) (Room A/B)

Concurrent Session I: Forest Management II (Room C)

- 1:15 - 1:45 PM *Status of GPS Research at the Whitehall GPS Test Course.* Bettinger.
- 1:45 - 2:15 PM *Changes in mixed deciduous forest from residential development drive native forest bird species to higher elevations.* Hepinstall.
- 2:15 - 2:45 PM *Wildfire Visualization using GIS and Forest Inventory Data.* Williams et al.
- 2:45 - 3:15 PM *Trinity River Information Management System: A Stakeholder Driven Resource Management Tool.* Snelgrove and Hays.

Concurrent Session II: Aquatics / Management (Room D/E)

- 1:15 - 1:45 PM *GIS as a Tool for Assembling Modern Sensor Data into Present Hydrologic Models.* Williams.
- 1:45 - 2:15 PM *Landscape Based Indicators for Nonpoint Source Water Pollution Watershed Categorization.* Lee and Linebach.
- 2:15 - 2:45 PM *An Enterprise GIS Approach to Forest Stewardship Planning on Private Land.* Eredics et al.
- 2:45 - 3:15 PM *Spatial analysis of woody biomass for bioenergy production in the Missouri Ozarks.* Stelzer and Barnett.

3:15 - 3:30 PM Break (Room A/B)

Concurrent Session I: Landscape Ecology and Land Use Analysis (Room C)

- 3:30 - 4:00 PM *Ability of Golf Courses to Provide Landscape Connectivity in Western North Carolina.* Extine et al.
- 4:00 - 4:30 PM *Visualization of Forest Landscape Dynamics of Different Scales.* Song and Wang.
- 4:30 - 5:00 PM *Rapid Methods for Estimating and Monitoring Tree Cover Change in Florida Urban Forests; the Role of Hurricanes and Urbanization.* Szantsoi et al.

Concurrent Session II: Remote Sensing and Image Analysis I (Room D/E)

- 3:30 - 4:00 PM *A Novel Approach to Quantifying the Forest Fuelbed using Ground-based LIDAR.* Loudermilk et al.
- 4:00 - 4:30 PM *Mapping Hemlock Forests using Remotely Sensed Imagery and Environmental Factors in Harlan County, Eastern Kentucky.* Kong et al.
- 4:30 - 5:00 PM *A Comparison of Pixel-Based and Object-Oriented Image Classification Techniques for Forest Cover Type Determination in East Texas.* Raines et al.

6:30 - 8:00 PM Poster Session, Reception (Room A/B)

Wednesday, March 26

8:00 - 8:45 AM Keynote speaker: Robert Gilmore Pontius Jr., Clark University (Room D/E)
How certain are you of your geographic information?: Blunders and Breakthroughs in Accuracy Assessment

8:45 - 9:00 AM Break (Room A/B)

Concurrent Session I: Species Composition and Distribution I (Room C)

9:00 - 9:30 AM *Predicting Species Composition in an Eastern Hardwood Forest with the Use of Digitally Derived Terrain Variables within a GIS.* Flanigan et al.

9:30 - 10:00 AM *The Simulation of SPB Spot Growth.* Chou et al.

Concurrent Session II: Forest Extension and Education I (Room D/E)

9:00 - 9:30 AM *Surveys of GIS Usage and Needs among Natural Resource Managers, Extension Agents, and Land Use Planners.* Merry and Bettinger.

9:30 - 10:00 AM *GPS Technology: A Management Tool for the Small Woodland Owner.* McLaren.

10:00 - 10:15 AM Break (Room A/B)

Concurrent Session I: Species Composition and Distribution II & Forest Extension and Education II (Room C)

10:15 - 10:45 AM *Element Distribution Modeling Tools (EDM Tools): A Custom ArcGIS Toolbar to Facilitate Robust Species Distribution Modeling.* Nibbelink et al.

10:45 - 11:15 AM *Improving Imperiled Species Management through Spatially Explicit Decision Tools.* McAbee and Nibbelink.

11:15 - 11:45 AM *GPS Workshops for Landowners in Mississippi: Acceptance and Lessons Learned.* DeLoach and Bailey.

Concurrent Session II: Remote Sensing and Image Analysis II (Room D/E)

10:15 - 10:45 AM *Landscape Scale Assessment of Red-Cockaded Woodpecker Habitat in Apalachicola National Forest using Feature Analyst.* Drake

10:45 - 11:15 AM *Prediction of Leaf Area Index for Southern Pine Plantations from Satellite Imagery using Regression and Artificial Neural Networks.* Shoemaker and Cropper

11:15 - 11:45 AM *Analysis of New Orleans Landscape Before and After Hurricane Katrina Utilizing RADARSAT-1 Synthetic Aperture Radar (SAR) Data.* Sartor et al.

11:45 - 12:15 PM Closing Remarks, Awards, Door Prizes (Room D/E)
