

Emerging Issues Along Urban-Rural Interfaces3: Linking Science and Society

Financial support from the following co-sponsors is gratefully acknowledged:

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Conference Program

Sunday, April 11

1:00 - 7:00 pm Registration and Check-in; Poster set-up – Capitol Ballroom South)

7:00 – 9:00 pm Welcome Reception – Sheraton Courtyard (2nd floor) - - Sponsored by the Center for Forest Sustainability and the School of Forestry & Wildlife Sciences - Auburn University, and InterfaceSouth – USDA Forest Service

Monday, April 12

8:00 am General session – Salon A (3rd floor)

Introductions, Conference logistics – Graeme Lockaby, Center for Forest Sustainability, Auburn University

Welcome – Richard Brinker, Dean, School of Forestry & Wildlife Sciences, Auburn University

Welcome – Ed Macie, USDA Forest Service

8:15 – 9:00 KEYNOTE ADDRESS
Southern Appalachia on the Edge, Ted L. Gragson, University of Georgia and Coweta LTER

9:00 – 9:45 KEYNOTE ADDRESS
Creating and Translating Ecological Knowledge: The Case of Urban Ecological Systems
Richard V. Pouyat, USDA Forest Service

9:45 – 10:15 Refreshment Break

10:15 – 11:00 KEYNOTE ADDRESS
Urban Ecology, Resilience Theory, and Sustainability at the URI, Charles L. Redman, School of Sustainability, Arizona State University

11:00 – 11:45 KEYNOTE ADDRESS
Mechanisms linking urban patterns to carbon dynamics: Hypotheses, observations, and future scenarios, Marina Alberti, University of Washington

11:45 – 12:30 KEYNOTE ADDRESS
Challenges and Opportunities for Interdisciplinary Research along Urban-Rural Gradients: Examples from Baltimore, MD., Steward T.A. Pickett, Cary Institute of Ecosystem Studies

12:30 – 1:30 Luncheon – Salon B (3rd floor)

Tree growth modeling to improve tree size and canopy coverage predictions, Julia Bartens and Eric Wiseman, Department of Forest Resources and Environmental Conservation, Virginia Tech

I-D The relationship between land-use policies and ecological processes Georgia 5
Moderator: Wayde Morse

Structuration of Complex Adaptive Social Ecological Systems: Focusing on Decision Making in Context, Wayde Morse – Auburn University, Megan Lupek – Auburn University, Bill McLaughlin – University of Idaho

Path Dependence, Critical Junctures Theory and Urban-Rural Planning: A Water Sharing Case Study, Lorraine Nicol, University of Lethbridge

Regional Governance of Natural Resources: Emerging Rural-Urban Interactions in Newfoundland and Labrador, Canada, Jennifer Daniels and Kelly Vodden, Department of Geography, Memorial University of Newfoundland

3:15 – 3:45 Refreshment Break

3:45 – 5:30 Concurrent Sessions II Room

II-A The relationship between land-use policies and ecological processes Georgia 2
Moderator: Daniel Westcot

The establishment and development of green Feng Shui villages in Okinawa, Bixia Chen - School of Economics, Fujian Normal University, and Yuei Nakama - Department of Subtropical Agricultural Science, Faculty of Agriculture, University of the Ryukyus

The Growing Trend of Multi-habitation and its Policy Implication in Korea: a Possible Win-Win Strategy between Urban Areas and Rural Areas, Jungmin Choi, Department of Architectural Engineering, Konkuk University, Seoul

Demand for and supply of urban trees: Empirical evidence from a citizen survey, Yaoqi Zhang and Bin Zheng, School of Forestry and Wildlife Sciences, Auburn University

Urban Forestry Strike Team - Landscape Scale Urban Storm Damage Assessments, Daniel Westcot, Georgia Forestry Commission

II-B Application of ecological research in land-use planning Georgia 3
Moderator: Heidi Kretser

An approach for quantifying threats from cumulative impacts across the urban-rural-wild spectrum for ecoregional scale planning, Gillian Woolmer, Mark Anderson, Karen Beazley, Rob

Baldwin, Patrick Doran, Graham Forbes, Louise Grattan, Alexis Morgan, Justina Ray, Conrad Reining, and Steve Trombulak, Wildlife Conservation Society, Canada

Sentiments toward land use regulation and planning to benefit wildlife at the rural-wildland fringe near Yellowstone National Park and Adirondack State Park, Heidi E. Kretser – Wildlife Conservation Society, Nancy A. Connelly – Cornell University, and Barbara A. Knuth – Cornell University

Opportunities for conservation design to facilitate wildlife habitat protection in county development regulations in the western U.S., Sarah E. Reed – Colorado State University and Wildlife Conservation Society, Jodi A. Hilty – Wildlife Conservation Society, and David M. Theobald – Colorado State University

Merging science, policy, and human dimensions to conserve wildlife habitat and connectivity in the Adirondack State Park, Leslie Karasin, Michale Glennon, Zoe Smith, and Heidi Kretser, Wildlife Conservation Society

II-C Science delivery
Moderator: Derek Godwin

Georgia 4

Oregon forests in transition: Education initiatives to address the effects of forest fragmentation along the urban-rural interface, Derek Godwin - Oregon State University Extension Service, Paul Ries – Oregon Department of Forestry, and Robert Emanuel - Oregon State University Extension Service.

Engaging land use planning officials on forest fragmentation - The FREMO Project, David W. Dickson, Center for Land Use Education and Research, University of Connecticut Cooperative Extension

Green infrastructure and your growing community: Forest resource education for local officials, Patrick Beggs and Christy Perrin, Cooperative Extension - North Carolina State University

II-D Spatial/scale aspects of land-use change
Moderator: Jeffrey Hepinstall-Cymerman

Georgia 5

Using remote sensing data to understand urban sprawl and land conservation influence on land cover changes, David Fleming, Penn State University

Growth management and patterns of land cover change in the central Puget Sound, Washington, 1986-2002, Jeffrey Hepinstall-Cymerman, Warnell School of Forestry & Natural Resources, University of Georgia

Land use plans and urban sprawl, Seong-Hoon Cho, Jiyoung Kim, Roland K Roberts, and Seunggyu Kim, Department of Agricultural Economics, University of Tennessee

II-E Special Session: Keynoters and Students

Georgia 6

7:00 – 9:00 Poster Reception – Capital Ballroom South (1st floor)
Sponsored by Auburn University’s Center for Forest Sustainability,
InterfaceSouth of the Centers for Urban and Interface Forestry, USDA
Forest Service, and Auburn University’s School of Forestry & Wildlife
Sciences

Tuesday, April 13

8:00 – 9:45 Concurrent Sessions III Room

III-A Spatial/scale aspects of land-use change Moderator: Scott Benson Georgia 2

Stormwater management in Dauphin Street area, Mobile, Alabama, Junyi Li, Department of Landscape Architecture and Design, Auburn University

Pedestrian street design, revitalization of Dauphin Street – downtown Mobile, Alabama, Jiayang Xie, Department of Landscape Architecture and Design, Auburn University

Bringing culture and stormwater retention back to the Mobile Bay, Scott Benson, Department of Landscape Architecture and Design, Auburn University

III-B Human influences on ecosystems Moderator: Chelsea Nagy Georgia 3

Effects of land use/cover on carbon storage near Apalachicola, FL, R. Chelsea Nagy and B. Graeme Lockaby, Center for Forest Sustainability, Auburn University

Impact of urbanization on water quality in northern Georgia, Jun Tu, Department of Geography and Anthropology, Kennesaw State University

Terrestrial carbon dynamics across gradients of urbanization, Lucy Hutyra - Boston University, Department of Geography & Environment, Marina Alberti - University of Washington, Urban Design and Planning, Nathan Phillips - Boston University, Department of Geography & Environment, et al.

Impact of different mulching type on soil Co2 flux of an urban forest ecosystem, Thomas Nyatta Legiandenyi, Kamran Abdollahi, Zhu Ning and Asebe Negatu, Southern University A&M College

III-C Monitoring/predicting human influences on landscapes & ecosystems Georgia 4
Moderator: Kathy Wolf

Changing landscapes, shifting values: Land use dynamics at the rural-urban interface in Calaveras County, California, Colleen Hiner, University of California – Davis

Quantifying the dynamics of human footprint: Do landscapes exhibit a legacy of sprawl?, Douglas A. Shoemaker and Ross K. Meentemeyer, Center for Applied GIS, UNC – Charlotte

Stewardship footprints and potential ecosystem recovery across the wildland to urban interface: An organizing framework for Puget Sound research, Dale J. Blahna and Kathy W. Wolf, U.S. Forest Service, Pacific Northwest Research Station

III-D Application of ecological research in land-use planning Georgia 5
Moderator: Michael Kensler

Prioritization of potential riparian buffer locations in an urbanizing, agricultural Midwestern (U.S.A.) watershed, Andrew P. Rayburn – Utah State University, and Molly van Appledorn - University of Maryland, Baltimore County

Setting conservation priorities for pool-breeding amphibians in urbanizing landscapes: Comparison of models, Robert F. Baldwin, Department of Forestry and Natural Resources, Clemson University

Using Public Participatory Modeling to Build Bayesian Belief Networks to Identify Lands Suited for Conservation, Working Forests, Agriculture, and Development, Jon McCloskey, Robert Lillieholm, and Chris Cronan, University of Maine

Rivers as systems: Implications for sustainable policy and management, Michael Kensler, Water Resources Center , Auburn University

9:45 – 10:15 Refreshment Break

10:15 – 12:00 Concurrent Sessions IV Room

IV-A Ecosystem impacts on human communities Georgia 2
Moderator: Charlene LeBleu

Green for Life!—Implementing environmental education within the urban –rural interface, Charlene LeBleu, Rebecca O'Neal Dagg and Carla Jackson Bell, College of Architecture, Design and Construction, Auburn University

Better Storm System Practices for Mobile, Alabama, Domini Cunningham, College of Architecture, Design and Construction, Auburn University

General planning based on the connection of city fabric and green infrastructure in Mobile, Alabama, XuanXuan Luo, College of Architecture, Design and Construction, Auburn University

IV-B Urban forestry and urban agriculture Georgia 3
Moderator: Richard Thurau

Urban agriculture and its function in urban environmental management in the context of adaptation, food security and climate change, Andrew Adam-Bradford, University of Sheffield

Approaches to development of a peri-urban garden community: South Korea as a case, Mark I. Wilson – Michigan State University, K. Irene Shim - Michigan State University, Jung Min Choi – Konkuk University, Seoul, and Eunseong Jeong - Michigan State University

Measuring urban forest health and sustainability: Introducing Urban Forest Resources and Institutions (UFRI), Thurau, Richard G., Sarah K. Mincey, Jacqueline M. Bauer, Tom P. Evans, Burnell Fischer, and Rinku R. Chowdhury, Indiana University

IV-C Evaluating changes to ecosystem services along urban-rural gradients Georgia 4
Moderator: Will Wilson

Phenology and physiology of an urban heat island, Will Wilson – Department of Biology, Duke University, and Joe Sexton - NASA Goddard Space Flight Center, Greenbelt, MD

*Reproduction of Eastern Bluebirds (*Sialia sialis*) in relation to land management and food resources in north-central Florida*, John J DeLuca and Kathryn E Sieving, Department of Wildlife Ecology and Conservation, University of Florida

Analysis of morphological effects of sprawl on rural form in contemporary Tehran metropolitan area, Hossein Estiri, University of Washington

IV-D Ecosystem impacts on human communities Georgia 5
Moderator: Sean O. Surla

Trees are Us, John Murungi, Department of Philosophy, Towson University

Park Park-Fabric Landscape-Landscape Systems Give Form to Architecture, Sean O. Surla, American Society of Landscape Architects

Exploring Decision Making Practices in Sustainable Development Assistance Organizations: Achieving Environmental Justice in Rural Appalachia, Curt Gervich, Virginia Tech

Wednesday, April 14

8:00 – 9:45 Concurrent Sessions V Room

V-A Ecosystem impacts on human communities Georgia 2
 Moderator: Andrew Adam-Bradford

Anthropogenic impacts on ecosystems, ecosystem services and human health along the urban-rural continuum, Andrew Adam-Bradford, University of Sheffield, UK

The application of green infrastructure in planning and designing for the Green Street Project in the City of Mobile, Ran Ran, College of Architecture, Design and Construction, Auburn University

Green walls: utilizing and promoting green infrastructure to control stormwater in Mobile, Alabama, Van Webb, College of Architecture, Design and Construction, Auburn University

V-B Science delivery Georgia 3
 Moderator: Mary L. Tyrrell

Changing roles in the southern United States, Nicole Wulff and L. Annie Hermansen-Baez, USDA Forest Service

Engaging family woodland owners: A Social Marketing approach, Mary L. Tyrrell, Brett Butler, and Purnima Chawla, Yale School of Forestry & Environmental Studies; USDA Forest Service; Center for Nonprofit Strategies

Using i-Tree applications to assess the effects of urbanization in Desoto County, Mississippi, Eric Kuehler, USDA Forest Service

V-C Monitoring/predicting human influences on landscapes & ecosystems Georgia 4
 Moderator: Mark Dougherty

The impact of forest to urban land conversion on water quality entering a drinking water supply reservoir in Southern Alabama, USA, Emile Elias and Mark Dougherty, Auburn University

Assessing and understanding environmental impacts of mountain bike technical trail features in urban-proximate parks, Christopher Kollar and Yu-Fai Leung, North Carolina State University

The impacts of housing development on birds and amphibians in Upstate South Carolina, J.R. Courter, T.D. Surasinghe, R.F. Baldwin, and R.J. Johnson, Department of Forestry and Natural Resources, Clemson University

Flow variability in urban vs. rural streams of an urbanizing landscape of Piedmont Province, North Carolina, Kunwar K Singh, Craig Allan and Ross Meentemeyer, Center for Applied GIS, UNC - Charlotte

V-D Urban forestry Georgia 5
Moderator: Matt Winn

Preferences for trees in residential landscapes in suburban communities, Bin Zheng and Yaoqi Zhang, Auburn University

UrbanCrowns: A photo-based crown assessment tool for urban trees, Matthew F. Winn - USDA Forest Service, Southern Research Station, Sang-Mook Lee - Bradley Department of Electrical Engineering, Virginia Tech, Philip A. Araman - USDA Forest Service, Southern Research Station

Urban forests and carbon flux: Cities as windows into the future, John Hom(1), Nicanor Saliendra(2), Kenneth Clark(1), Matthew Patterson(1), Nicolas Skowronski(1), Ian Yesilonis(1), and David Nowak(1), (1) - US Forest Service Northern Research Station, (2) - University of Maryland, Baltimore County

Market for urban forest carbon credits, Neelam C. Poudyal, Jacek P. Siry, and J. M. Bowker, Warnell School of Forestry, University of Georgia; USDA Forest Service, Southern Research Station

9:45 – 10:15 Refreshment Break

10:15 – 12:00 Concurrent Sessions IV Room

VI-A Restoring/rehabilitating terrestrial and aquatic ecosystems Georgia 2
Moderator: Mark Curry

Using alternative stormwater treatment methods to reduce expenses, pollution and generate sustainable practices within local municipalities, Mark H. Curry, College of Architecture, Design and Construction, Auburn University

A proposal for the restoration and enhancement of Mobile's relationship with the Mobile River: The Peoples Wharf, Daniel Ballard, College of Architecture, Design and Construction, Auburn University

Roof renovations by application of planted material for the purpose of saving energy costs and storm water recycling, Russ Harrington, College of Architecture, Design and Construction, Auburn University

VI-B Human influences on ecosystems
Moderator: Ed Macie

Georgia 3

The Piedmont Crescent: Integrating human and natural systems, Ed Macie, USDA Forest Service, Centers for Urban and Interface Forestry

Impacts of current use value property tax policy on land use change decisions in Georgia, Daowei Zhang and Li Meng, School of Forestry and Wildlife Sciences, Auburn University

Landowners' incentives for forest conservation around El Yunque National Forest, Tania Lopez Marrero, Institute of Caribbean Studies - University of Puerto Rico

VI-C Application of ecological research in land-use planning
Moderator: Mike Farmer

Georgia 4

Bird diversity indicates ecological value in urban home prices, Michael C. Farmer, Mark Wallace, and Michael Shiroya, Texas Tech University; The Wildlife Society; American Association of Environmental and Resource Economists; Ecological Society of America

Urbanized ecosystems: Proof of Concept, Michael Iversen, University of Illinois – Chicago

Predicting the spatial distribution of human-black bear interactions across an urban area, J.A. Merkle, P.R. Krausman, J.J. Jonkel, and N.J. DeCesare, Boone and Crockett Program in Wildlife Conservation, Wildlife Biology Program, University of Montana, Montana Fish Wildlife and Parks

VI-D Human influences on ecosystems
Moderator: Shaun Tanger

Georgia 5

Stakeholders' perceptions of the negative drivers of ecosystem change: the case of the lands within and around El Yunque National Forest, Tania Lopez Marrero, Institute of Caribbean Studies - University of Puerto Rico

Conservation democracy: Ecology, democratic theory, and national forest management under the Healthy Forest Initiative, Andrew George, Curriculum for the Environment and Ecology, UNC Chapel Hill

The impact of state urban-rural composition on environmental policy: 1970-2008, Shaun M. Tanger, School of Forestry & Wildlife Sciences, Auburn University

12:00 p.m.

Conference concludes.

Abstracts of the keynote presentations

Southern Appalachia on the Edge

Ted L Gragson, University of Georgia

Landscapes in the southeastern U.S. are expected to change profoundly in the next 50 years. Not only will the dramatic exurbanization and its driving socioeconomic forces evident the last three decades persist, they will interact with the anticipated and significant changes in the rates, frequencies, and intensities of climatic factors. Much attention has been given to the pattern, if not the process, stemming from this interaction in what represent the end members of our human-dominated world: urban and wildland areas. I will center my remarks in this presentation on the rural and quasi-rural lands on which the sprawling urban development characteristic of the Southeast is now converging. The foundation for these remarks is the accumulated knowledge from more than 30 years of Coweeta LTER research in southern Appalachia. This will allow me not only to identify some of the critical URI issues we can expect to face in the coming decades, but some of the challenges and opportunities for organizing the transdisciplinary research these URI issues require.

Southern Appalachia is legendary in the Southeast for its clear cobble-bottomed streams and waterfalls, mist-shrouded mountain vistas, and remarkable biodiversity. However, the historic isolation of the region that protected these environmental amenities ended when southern Appalachia became part of a vast, trans-metropolitan region that is growing as "...an irregularly colloidal mixture of rural and suburban landscapes" (Gottmann, 1961: 5). As of AD 2000, this so-called Piedmont Megapolitan Region had a combined population of over 18 million (6.5% of the total US population), was growing annually at 1.7% (ranked 5th in the U.S.) and covered 236,000 km². The state of Georgia is the fastest growing state east of the Rockies at an annualized rate between 1990 and 2000 of 3.6%. Over the same period, metropolitan and micropolitan populations across the Southeast grew respectively by 19.2% and 12.0%, while populations outside defined urban areas grew at the rate of 9.0%. This sprawling urban development is spreading across the rural and quasi-rural lands of southern Appalachia by a combination of reductions in development density, segregation of residential and commercial districts, and expansion of transportation networks.

This sprawl is closely associated with a decrease in household size and an increase in the number of dwellings that reflect an aging of the U.S. population and changes in behavioral and social mores. All these factors combined increase the vulnerability of populations in the Southeast to hydroclimate extremes (i.e., droughts, floods) that accumulating evidence indicates are increasing in frequency and severity. These extremes are not merely unique, never-to-recur events as the absence of national, state or community planning would suggest, but are expected to continue into the future. The increased vulnerability of populations is evident in rising costs of numerous kinds derived from property damage through loss of human life resulting from extreme hydroclimate events. In 2004, the Peak's Creek Landslide (Macon County, NC) destroyed 15 homes and resulted in 5 fatalities. In September 2008, many parts of metropolitan Atlanta and surrounding areas had rainfall totals equivalent to a 500-year flood that closed major transportation corridors and school systems, and contributed to at least 10 fatalities. The

unprecedented times we live in and the environmental challenges we face as a society demand novel approaches to the production, dissemination and application of knowledge.

Creating and Translating Ecological Knowledge: The Case of Urban Ecological Systems

Richard V. Pouyat, USDA Forest Service

Urban ecological systems represent a formidable challenge to ecologists. As a result, until the 1990s ecologists in North America avoided urban areas, or when they did study human settlements, they focused on ecological processes embedded within cities (i.e., “ecology *in* the city”) rather than integrative investigations of greater metropolitan areas as biophysical-social complexes (i.e., “ecology *of* the city”). In the case of ecological investigations *in* the city, methodologies, conceptual frameworks, and mathematical ecological models were developed without people explicitly included. By contrast, with ecological investigations *of* the city, an integrated approach allows for investigations of feedbacks between the human and biophysical domains. This requires not only an understanding of ecological systems, but also of human behavior. However, even with the integration of the human and ecological domains, ecologists remain observers from outside the system. This presentation will (1) highlight what we have learned about urban ecological systems, (2) discuss how the study of urban ecological systems has the potential to advance ecological theory and (3) explore the “human-centered approach” to the study of urban ecological systems, which embeds the ecological community within urban ecological systems, and how this approach results in greater understanding and more effective environmental policy decision making.

Urban Ecology, Resilience Theory, and Sustainability at the URI

Charles L. Redman, Arizona State University

The conceptual framework we utilize in approaching our investigations impacts the way we think about the problem, how we work together and even the results of our research. Moreover, dynamic phenomena, such as the Urban-Rural Interface have characteristics unique to the phenomenon itself and others conditioned by the context in time and space that it is passing through. This presentation will address some of the opportunities and conundrums created by the application of one or all of the conceptual frameworks suggested in the title and where it might point to as being the most promising and needed avenues of research for the next decade.

Mechanisms linking urban patterns to carbon dynamics: Hypotheses, observations, and future scenarios

Marina Alberti, University of Washington

Urbanizing regions are major determinants of global, regional, and local scale environmental changes. Urbanization affects the structure and function of Earth’s ecosystems through alteration of biophysical processes and habitat and modification of major biogeochemical cycles. Environmental changes resulting from urbanization, in turn affect human health and well-being.

Scholars of urban ecology have hypothesized that patterns of urbanization control ecosystems dynamics through the complexity of interactions and feedback mechanisms linking human decisions to ecological processes. During the last three decades we have learned a great deal about the interactions between human activities and ecosystem function. However, empirical studies of the underlying processes and mechanisms linking urban patterns and ecosystem function are extremely limited. There are very few empirical data available to systematically evaluate how alternative patterns of urban development (i.e., centralized versus sprawling) interact with ecosystem processes along urban gradients across diverse biomes. Identifying effective strategies to enhance ecological resilience of urban regions requires more mechanistic and comprehensive studies of such interactions.

Building on current empirical studies on urban carbon fluxes and dynamics, this paper develops formal hypotheses on how alternative development patterns produce different carbon signatures and on how interactions between urbanization patterns and carbon stocks and fluxes might change under alternative future scenarios. By focusing on the interactions between urbanization patterns and the carbon cycle, I highlight the challenges and opportunities that the study of coupled human-natural systems poses for ecology and the social sciences. I propose an integrated approach linking observations, modeling, and scenario building to foster advances in scientific research and policy making.

Challenges and Opportunities for Interdisciplinary Research along Urban-Rural Gradients: Examples from Baltimore, MD.

Steward T.A. Pickett, Cary Institute of Ecosystem Studies

The initial studies of urban rural gradients were focused on biological systems or patches within a matrix differing in degree of human habitation and built structure. As urban ecology has developed as a mainstream research approach, the recognition and need to incorporate human actions and artifacts within the gradient itself has grown. This need to better integrate socio-economic and biophysical research is the greatest challenge to the initial frameworks used by the Baltimore Ecosystem Study, Long-Term Ecological Research project. To enhance integration we are attempting to build on the human ecosystem framework, as applied in the context of watersheds and patch dynamics. A first step is to incorporate new theories of spatial controls on biodiversity and of engineered stream continua to motivate human-biophysical integration. A second approach is to adopt modeling of locational choices by households and firms. Together the new theories and more integrated modeling should allow us to project alternative urban-rural futures based on changing climate and on the new and emerging policies for sustainability in our region. Examples of research findings and policy implications that have emerged from the Baltimore Ecosystem Study are presented to ground the discussion of the nature of the balance between challenges and opportunities for research on the urban-rural interface.

Posters

Mainstreaming forest conservation and people well-being - - *Hedy I. Nieves* and Tania Lopez (University of Puerto Rico)

Increasing canopy cover on single-family residential property in Seattle, Washington - - *Jana Dilley* (University of Washington)

Factors influencing residents' knowledge about urban wildlands and the potential for alternative - - *Laura E. Martin*, Urs P. Kreuter, and Michael G. Sorice (Texas A&M University)

Developing a stakeholder driven family forest initiative through Maine's Center for Research on Sustainable Forests - - *Patrick Lyons* and Jessica Leahy (University of Maine)

Using occupancy modeling to estimate avian species richness and determine the effects of exurbanization in the southern Appalachian mountains - - *Paige Barlow*, Jeff Hepinstall-Cymerman, and Myung-Bok Lee (University of Georgia)

Effects of urban development on Garry Oak acorn dispersal processes - - *Julia Michalak* (University of Washington)

A participatory mapping exercise in land owner preferences toward exurban development within three distinct communities of southwestern Montana and northeastern Idaho - - *Andra Toivola*, *Heidi Kretser*, Nancy Connelly, and Jeff Burrell (Wildlife Conservation Society)

Ecological restoration and urban planning: Integrating to end disturbance - - *Mary Roderick* (University of Washington)

Tree inventory and analysis using the UFORE model at a Southeastern U.S. university - - *Nicholas A. Martin*, Arthur H. Chappelka, Gary J. Keever, and Edward F. Loewenstein (Auburn University)

Urban markets as a method of downtown revitalization through facilitating cultural and economic exchange - - *Tyler Smithson* (Auburn University)

Urban tree cover distribution as a human health indicator: A case study of Tampa, Florida - - *Viniece Jennings*, Clyde Brown, Elijah Johnson, Wayne Zipperer, and Richard Gragg (Florida A&M University)

Alternatives for residential development along the urban fringe: developer, city staff, and resident perceptions of low-impact and conservation subdivision designs - - *Troy Bowman*, Jan Thompson, and John Tyndall (Iowa State University)

The role of impervious surface and socioeconomic factors in determining water quality - - *Molly Otiende* (Auburn University)

Conservation easements and land trusts in Alabama: Comparing mission statements and landowner perceptions - - *Megan Lupek* and Wayde Morse (Auburn University)

Riparian Buffer Demonstrations: Promoting Protection of Waterways - - *K. Cunningham*, C. Stuhlinger, H. Liechty, and J. Pennington (University of Arkansas Division of Extension)

Influence of Urbanization on Sediment and Phosphorus Transport in Small East Alabama Catchments - - *Joseph D'Angelo* and Christopher Anderson (Auburn University)

Characterizing landscape Changes in Coast Watersheds in the Gulf of Mexico by Using Remote Sensing and GIS - - *Shufen Pan*, Larry Prince, Guiying Li, and Hanqin Tian (Auburn University)

Sediment Pollution Assessment of Abandoned Developments Using Remote Sensing and GIS - - *Joshua D. Werts*, Elena A. Mikhailova and Christopher J. Post, Julia L. Sharp (Clemson University)

RUAF Foundation: The mission and international work of the Resource Centres on Urban Agriculture and Food Security, The Netherlands - - *Andrew Adam-Bradford* (University of Sheffield)

Soil carbon in residential areas in Auburn, Alabama - - *Ann Huyler*, Arthur Chappelka and Steven Prior (Auburn University)

Metabolism of Boston - - *Lucy Hutyra*, Nathan Phillips, et al., (Boston University)

Vegetation patterns in an urbanizing metropolitan area: socio-economic drivers and effects on carbon storage and water flows - - *Karist Puruncajas* (University of Washington)

An Analysis of Urban Development and Its Impact on the Apalachicola Bay Watershed, Franklin County, Florida - - *James E. Gleason* and B. Graeme Lockaby (Auburn University)

Economic Development and Flood Reduction in Mobile, Alabama through Mixed-Use Infill and Sustainable Stormwater Management Practices - - *Will Hargrove* (Auburn University)

Leaf litter decomposition and nutrient dynamics across an urbanization gradient in western Florida - - *Heather A. Enloe* and B. Graeme Lockaby (Auburn University), and Wayne Zipperer (USDA Forest Service)

Assessing performance of conservation-based Best Management Practices: Coarse vs. fine-scale analysis - - *Denise Piechnik* (Penn State University), Sarah Goslee, and Tamie Veith (USDA ARS)

Wildfire and Social Vulnerability Across the South – Neelam Poudyal, *Cassandra Johnson Gaither*, and Scott Goodrick (University of Georgia and USDA Forest Service)

An assessment of Illinois Conservation Opportunity Areas: Stakeholders' perspectives on conservation planning, implementation, and threats - - *Natalie Mountjoy* (Southern Illinois University Carbondale), Mae A. Davenport (University of Minnesota), David J. Myers (Illinois Department of Natural Resources), and Matt R. Whiles (Southern Illinois University)

Realizing the economic value of a forested landscape in a viewshed - - Neelam Poudyal (University of Georgia), Donald Hodges (University of Tennessee), *John Fenderson*, Ward Tarkington, and Tim Phelps (Tennessee Division of Forestry)

Southeastern coyote home range size, activity patterns, and habitat use across an urban gradient, *Holly Jantz*, Jim Armstrong, Todd Steury, Wendy Arjo (Auburn University)

Status report on efforts to manage and eradicate large constrictors in Florida, Christina Romagosa and Graig Guyer (Auburn University)

Conference Participants

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