



US - IALE

The 2013 Annual Symposium:
Landscape Dynamics Along Environmental Gradients
April 14 –18, 2013 ✪ Austin, Texas

TABLE OF CONTENTS

Welcome.....	2
Acknowledgements	3
General Conference Information	4
Hotel Layout.....	5
Schedule at-a-Glance	6
Plenary Sessions.....	8
Technical Sessions Schedule at a Glance	11
Technical Presentations:	
Monday Schedule	12
Tuesday Schedule	22
Wednesday Schedule	27
Poster Presentations	35
Awards	38
Sponsors & Exhibitors	40
US-IALE Membership	41



The 2013 Annual Symposium
April 14 –18, 2013 ☪ Austin, Texas

WELCOME!

The Planning Committee warmly welcomes you to **Austin** and to central Texas. The theme for this 28th annual meeting of the **U.S. Regional Association of the International Association for Landscape Ecology** is ***Landscape Dynamics along Environmental Gradients***.

The program strives to showcase recent **trends in research** in landscape ecology that connect genetic and physiological processes to those that are ecosystem-related. However, it does so aware of the importance of global drivers of change and it makes room for applications of landscape ecology to management and planning. It also highlights some of the statistical, methodological, and technical **innovations** that are permitting new ways of monitoring and **predicting landscape dynamics**.

Austin is located in central Texas, within a short distance to the rolling landscapes of the **Hill Country**. Billing itself the "**live music capitol of the world**", Austin is a fun city to visit with great food and entertainment. With more than 800,000 people, Austin is the **13th largest city in the U.S.** and one of the fastest growing. Austin is the capitol of Texas and home to the University of Texas at Austin, an internationally ranked research-1 institution with more than 50,000 undergraduates. It is also an outdoor city with a network of trails converging around Town Lake and Barton Springs, in many respects the hub of the city. But most of all, Austin is a place you can help "keep Austin weird", a homage to its liberal roots and **eclectic cultural ambience**.

Short trips can take you to the **Lady Bird Johnson Wildflower Center**, an organized research unit of The University of Texas, which covers almost 300 acres in Southwest Austin. The Center's gardens display the native plants of the Central Texas Hill Country, South and West Texas, while the Plant Conservation Program protects the **ecological heritage** of Texas by conserving its rare and endangered flora. Further afield the **Balcones Canyonlands** area in western Travis County provides habitat for a number of **rare and endangered** plant and animal species found nowhere else: aboveground are unique woodlands, wetlands and grasslands, while belowground is a honeycomb network of caves, sinkholes and springs containing highly specialized animals adapted to these subterranean environments. About two hours from Austin, **Enchanted Rock State Natural Area** consists of a huge, pink granite exfoliation dome that rises 425 feet above ground, 1,825 feet above sea level, and covers 640 acres. It is one of the **largest batholiths** (underground rock formation uncovered by erosion) in the U.S. and was named by the Tonkawa Indians who believed that ghost fires flickered at the top.

We hope that you will enjoy the science and management advances in landscape ecology that will be available in the talks, posters, workshops and symposia. We also hope that you enjoy the weather, the music, the friendliness, and the natural wonders of Austin and central Texas.

Welcome to the 2013 US-IALE Symposium in Austin, Texas!

ACKNOWLEDGEMENTS

We would like to thank the many people who generously contributed time and effort to make the meeting a success. The current **US-IALE officers** were involved in many ways:

Kurt Ritters, Emily Minor, Michelle Steen-Adams, Jeffrey Hollister, Audrey Mayer, Jason J. Taylot, Julie Ripplinger and Molly Van Appledorn.

We appreciate the extra efforts made by **workshop and symposia organizers**:

Falk Huettmann, Jeffrey Evans, Julie Ripplinger, Molly Van Appledorn, Florencia Sangermano, Melanie Murphy, Nusha Keyghobadi, Ajith Perera, João Azevedo, Brian Sturtevant, William Hargrove, Forrest Hoffmann, Songlin Fei and Bryan Pijanowski.

We thank our **plenary speakers** for their valuable contributions:

Frederick Steiner, Glen MacDonald and Maria Uriarte.

We also thank Jennifer Miller and many others who helped to run **paper sessions**. We are very grateful for assistance from our **student volunteers**:

Sara Diamond, Paul Holloway, Emily Mixon, Molly Polk, Tania Peña-Baca, Collin Roland, Gautam Surya, Andrew Tilker and Xuebin Yang.

We would also like to acknowledge the assistance of **past meeting organizers** who have crafted templates of dates and tasks. Warm thanks to Matt Viehdorfer, US-IALE **webmaster**, for skills with databases and data merges. Finally, we are especially grateful for truly extraordinary efforts from Cindy Delaney, Meg Boera and the entire crew at Delaney Meeting & Event Management, who managed crucial portions of the meeting organization, and were essential partners in this effort.

Local Host:

❖ **Wendy S. Gordon**, *Principle, Ecologia Consulting*

Program Co-Chairs:

❖ **Timothy H. Keitt**, *Associate Professor, Section of Integrative Biology, University of Texas at Austin*

❖ **Kenneth R. Young**, *Professor, Department of Geography & the Environment, University of Texas at Austin*

GENERAL CONFERENCE INFORMATION

REGISTRATION & INFORMATION DESK:

The conference registration desk is located on the third floor in the Capitol Ballroom Foyer. Stop by here to leave/receive messages, post/read announcements, and get information or assistance with conference functions. Hours of operation are listed below for quick reference:

Sunday, April 14	2:00 p.m. - 6:00 p.m.
Monday, April 15	7:00 a.m. - 5:00 p.m.
Tuesday, April 16	7:00 a.m. - 5:00 p.m.
Wednesday, April 17	7:00 a.m. - 5:00 p.m.

SPEAKER INFORMATION: All rooms will be set with a laptop and data projector. Student volunteers will be in each session room 15 minutes prior to the session start to troubleshoot any audio visual issues.

REFRESHMENTS & MEALS: The Full Conference Registration and Student Registration fee includes access to meals and social events as follows: Welcome Social on Sunday night; Lunch on Monday and Wednesday; Poster Social on Monday night; Continental Breakfast Monday, Tuesday and Wednesday; coffee breaks daily; and the Awards banquet on Tuesday evening. For lunch options on Tuesday, a list of area restaurants will be available at the registration desk. NOTE: the Student-Mentor lunch will be held on Monday with the regular attendee lunch. If you are interested in participating in the Student Mentor lunch, please check at registration.



STUDENT JOB BOARD: A job board will be available near the registration desk. Check out the board if you are looking for an assistantship or job. Potential advisors and employers: be sure to post announcements at the start of the meeting.

STUDENT RIBBON: In their registration packets, students will receive a colored ribbon to attach to their name tag. All meeting registrants are encouraged to engage students in conversations and professional activities in order to facilitate the networking process.

BUY A STUDENT A DRINK: Professionals can purchase drink tickets at the registration desk and on Tuesday night at the reception prior to the banquet, students will be given tickets with the professionals name on it. Students are encouraged to seek out the professional to thank them and learn about their career paths.

POSTERS: Posters will be located in the Capitol Ballroom starting on Monday at 5:00 p.m. through Wednesday afternoon. Continental breakfasts, coffee breaks, lunches and the Awards Banquet will also be located in this room. Posters will be attended by their authors on Monday night from 5:00 p.m. – 7:00 p.m. during the **Poster Social**.

EXHIBITS: Please plan to stop by and visit with exhibit displays in the Capitol Ballroom pre-function starting on Sunday afternoon through Wednesday afternoon.

BUSINESS CENTER: The hotel operates a full-service Business Center located on second floor near the restaurant, called The Link. Take care of your administrative needs during the conference with access to a copier, fax machine, printer and a computer rental station.

INTERNET SERVICE: US-IALE guests are entitled to complimentary Wi-Fi high-speed Internet access in the hotel guest rooms. Wi-Fi Hot Spots are available at no charge in the main lobby and on the second floor near The Link.

PARKING: On-site parking is available for \$16 self-parking or \$26 for valet service, per day.

HOTEL LAYOUT




SCHEDULE AT A GLANCE

☆ = social event

Sunday, April 14

9:00 a.m. – 5:00 p.m.	Pre-Conference Full-Day Workshops (pre-registration required; \$50 fee) <ul style="list-style-type: none"> Guidos: Landscape Pattern and Connectivity Analysis – Capitol View Terrace North Nonparametric and Machine Learning modeling using opensource tools: Workflows for linking Geographic Information Systems (GIS) with statistical software in R – Capitol View Terrace South
2:00 p.m. – 6:00 p.m.	Conference Registration Desk Open / Exhibitor Set-up – Capitol Ballroom Foyer
3:00 p.m. – 6:00 p.m.	US-IALE Executive Committee – Tannehill
6:30 p.m. – 8:30 p.m.	☆ Welcome Social – Creekside <i>Enjoy light hors d'oeuvres and a cash bar. Dinner is on your own.</i>

Monday, April 15


7:00 a.m. – 5:00 p.m.	Conference Registration Desk Open – Capitol Ballroom Foyer
7:00 a.m. – 8:00 a.m.	Continental Breakfast – Capitol Ballroom E-H
8:00 a.m. – 9:00 a.m.	Welcome Remarks & Plenary Session I: Design for a Vulnerable Planet – Capitol Ballroom D <i>Frederick Steiner, School of Architecture, University of Texas, Austin</i>
9:00 a.m. – 9:20 a.m.	 Coffee Break – Capitol Ballroom E-H
9:20 a.m. – 12:00 p.m.	Concurrent Sessions

CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B
Landscape Change 1	Urban 1	Ecosystem Services	Landscape Assessment Tools	SYMPOSIUM: Landscape Genetics 1	SYMPOSIUM: Forest Landscapes and Global Change

12:00 p.m. – 1:00 p.m.	Attendee Lunch and Student-Mentor Lunch – Capitol Ballroom E-H <i>(sign up in advance to participate in the student-mentor lunch)</i>
12:00 p.m. – 5:00 p.m.	Poster Set-up – Capitol Ballroom E-H
1:00 p.m. – 5:00 p.m.	Concurrent Sessions


CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B
Landscape Change 2	Urban 2	Biogeography	Conservation	SYMPOSIUM: Landscape Genetics 2	SYMPOSIUM: Forest Modeling

3:00 p.m. – 3:20 p.m.	Refreshment Break
5:00 p.m. – 7:00 p.m.	☆ Poster Social – Capitol Ballroom E-H <i>Snacks and cash bar</i>
7:00 p.m. – 9:00 p.m.	☆ NASA/MSU Dinner (invitation only) – Creekside
9:00 p.m. – 11:00 p.m.	☆ Student Social <i>Offsite at Mohawk Bar (912 Red River Road, just around the corner from the hotel) The student social is designed to encourage informal interactions among students attending the conference. All ages welcome! (proper I.D. required for alcoholic beverages.)</i>

Tuesday, April 16	
7:00 a.m. – 5:00 p.m.	Conference Registration Desk Open – Capitol Ballroom Foyer
7:00 a.m. – 8:00 a.m.	Continental Breakfast – Capitol Ballroom E-H
8:00 a.m. – 9:00 a.m.	Plenary Session II: Landscape Ecology at the Edge of the World – Capitol Ballroom D <i>Glen MacDonald, Institute of the Environment and Sustainability, UCLA</i>
9:00 a.m. – 9:20 a.m.	 Coffee Break – Capitol Ballroom E-H
9:20 a.m. – 12:00 p.m.	Concurrent Sessions

CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL
Remote Sensing 1	Forest Ecology	Spatial Analysis: Movement	Land Use Planning	Global Change	Fragmentation

1:00 p.m. – 5:00 p.m.	Half-day Field Trip: Lady Bird Johnson Wildlife Center <i>(Space is limited; pre-registration required; \$45 fee)</i> <i>Depart from hotel main entrance at 12:45 p.m.</i>
1:00 p.m. – 5:00 p.m.	Half-day Workshops <i>(Space is limited; pre-registration required)</i> <ul style="list-style-type: none"> ▪ Land Cover Change Modeling and Implications on Biodiversity (\$25 fee)– Capitol A-B ▪ Student Workshop: Data Management for Landscape Ecologists – Capitol D
6:00 p.m. – 7:00 p.m.	★ Cocktail Reception and “We’ll Pick up the Tab” Social – Capitol Ballroom Foyer <i>Professionals can pre-purchase drink tickets for random distribution to students at the social. To redeem their ticket, students must find who purchased the ticket and introduce themselves. Happy Networking!</i>
7:00 p.m. – 9:00 p.m.	★ Awards Banquet – Capitol Ballroom E-H

Wednesday, April 17	
7:00 a.m. – 8:00 a.m.	US-IALE Executive Committee Meeting – Bickler
7:00 a.m. – 8:00 a.m.	Continental Breakfast – Capitol Ballroom E-H
7:00 a.m. – 5:00 p.m.	Conference Registration Desk Open – Capitol Ballroom Foyer
8:00 a.m. – 9:00 a.m.	Plenary Session III: Integrating Frugivory and Animal Movement: A Review of the Evidence and Implication for Scaling Seed Dispersal – Capitol Ballroom D <i>Maria Uriarte, Columbia University</i>
9:00 a.m. – 9:20 a.m.	 Coffee Break – Capitol Ballroom E-H
9:20 a.m. – 12:00 p.m.	Concurrent Sessions

CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	TANNEHILL	CAPITOL C	CAPITOL VIEW TERRACE SOUTH
Remote Sensing 2	Disturbance	Forest Landscapes	Wildlife Ecology	SYMPOSIUM: Phenology 1	SYMPOSIUM: Invasives

12:00 p.m. – 1:00 p.m.	Attendee Lunch – Capitol Ballroom E-H
1:00 p.m. – 5:00 p.m.	Concurrent Sessions { Refreshment Break from 3:00 p.m. – 3:20 p.m.}

CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	
Fire	Spatial Analysis	Riparian	Sustainable Management	SYMPOSIUM: Phenology 2	

Evening	Dinner on your own in Austin. <i>For a list of suggestions see the Conference Registration Desk.</i>
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Thursday, April 18	
7:30 a.m. – 4:30 p.m.	Full-day Field Trips <i>(Space is limited; pre-registration required; \$85 fee)</i> <ul style="list-style-type: none"> ▪ Enchanted Rock State Natural Area ▪ Balcones Canyonlands Preserve <i>Depart from hotel main entrance at 7:30 a.m.</i>

PLENARY SESSIONS

Monday, April 15

Plenary I: Design for a Vulnerable Planet

8:00 a.m. – 9:00 a.m.

FREDERICK STEINER, School of Architecture, University of Texas, Austin

OVERVIEW:

We inhabit a vulnerable planet. The devastation caused by natural disasters such as the southern Asian tsunami, Hurricanes Katrina and Ike, Superstorm Sandy, and the earthquakes in China's Sichuan province, Haiti, and Chile — as well as the ongoing depletion and degradation of the world's natural resources caused by a burgeoning human population, have made it clear that "business as usual" is no longer sustainable. We need to find ways to improve how we live on this planet while minimizing our impact on it. *Design for a Vulnerable Planet* sounds a call for designers and planners to go beyond traditional concepts of sustainability toward innovative new design that fosters regeneration and resilience.

Drawing on his own and others' experiences across three continents, Frederick Steiner advocates design practice grounded in ecology and democracy and informed by critical regionalism and reflection. He begins by establishing the foundation for a more ecological approach to planning and design, adopting a broad view of ecology as encompassing human and natural, urban and wild environments. Steiner explores precedents for human ecological design provided by architect Paul Cret, landscape architect Ian McHarg, and developer George Mitchell while discussing their planning for The University of Texas at Austin campus, the Lake Austin watershed, and The Woodlands. Steiner then focuses on emerging Texas urbanism and extends his discussion to broader considerations beyond the Lone Star State, including regionalism, urbanism, and landscape in China and Italy. He examines the lessons to be learned from human and natural disasters such as 9/11, Hurricane Katrina, and the BP oil spill. Finally, Steiner offers a blueprint for designing with nature to help heal the planet's vulnerabilities.

ABOUT FREDERICK STEINER:

Frederick Steiner is Dean of the School of Architecture, University of Texas at Austin. His books include *Design for a Vulnerable Planet*, *Urban Ecological Design* (with Danilo Palazzo), *The Living Landscape*, and *To Heal the Earth* (with Ian McHarg). Steiner was a Fulbright scholar at Wageningen University, the Netherlands; a Rome Prize Fellow at the American Academy in Rome; and a visiting professor at Tsinghua University, Beijing. He received a Ph.D., an M.A., and a Master of Regional Planning from the University of Pennsylvania as well as a Master of Community Planning and a B.S. in Design from the University of Cincinnati.



Tuesday, April 16

Plenary II: Landscape Ecology at the Edge of the World – Climate Warming and Response of Northern Treeline Zone

8:00 a.m. – 9:00 a.m.

GLEN MACDONALD, Institute of the Environment and Sustainability, UCLA

OVERVIEW:

The boreal treeline zone represents the edge between the treeless Arctic and the forested lands to the south. Due to Arctic Magnification, recent and anticipated increases in temperature related to rising concentrations of greenhouse gases are particularly robust in the higher northern latitudes including the treeline zone. Significant northward shifts in treeline will displace tundra systems and features such as a caribou breeding habitat. Such shifts will also serve as a positive feedback enhancing rates and magnitudes of warming regionally and globally. Simple projections of future vegetation based on Grinnellian niche approaches suggest displacement of the treeline to or beyond the current Arctic coastline by 2100. However, just as the current treeline is a spatially diverse landscape, and tree distribution here is uneven and intimately tied to minor variations in the landscape, dictated by topography, edaphic conditions coupled with tree physiology and morphology, so the response of the treeline ecotone is likely to be spatially complex and possibly slower, in terms of complete tundra replacement, than climate-vegetation equilibrium models might suggest. There is a critical need for both generalized theoretical landscape ecology models and spatially explicit landscape ecology modeling to fully anticipate rates and geographic patterns of treeline response to warming. These studies must also incorporate appropriate information of species specific physiology and morphology to truly represent to potential future at this critical edge of the world.

ABOUT GLEN MACDONALD:



Glen MacDonald is UC Presidential Chair and Director of the UCLA Institute of the Environment and Sustainability. He is also a Distinguished Professor of Geography and of Ecology and Evolutionary Biology at UCLA. Glen conducts research on climate change and its impact on terrestrial and aquatic environments blending retrospective analysis using tree-rings, palynology and paleolimnology with field studies and modeling. He has worked on issues related to boreal forest and treeline environments for over 30 years and conducted studies across the Eurasian Arctic, northern Canada and the mountains of western North America. He has published over 140 peer-reviewed articles and an award winning book. For his research Glen MacDonald has held visiting fellowships at Cambridge and Oxford, been awarded the University of Helsinki Medal and elected a Fellow of the American Association for the Advancement of Science.

Wednesday, April 17

Plenary III: Integrating Frugivory and Animal Movement: A Review of the Evidence and Implication for Scaling Seed Dispersal

8:00 a.m. – 9:00 a.m.

MARIA URIARTE, Columbia University

OVERVIEW:

Identification of general principles about the consequences of seed dispersal by animals for the structure and dynamics of plant populations and communities remains elusive. This is in part because seed deposition patterns emerge from interactions between frugivore behavior and the distribution of food resources, both of which can vary over space and time. I will present a framework for a frugivore-centered, process-based, synthetic approach to seed dispersal research that integrates animal movement and seed dispersal ecology across multiple spatio-temporal scales. To guide this synthesis, I will survey existing literature using paradigms from seed dispersal and animal movement and propose a way forward based on recent technological advances.

ABOUT MARIA URIARTE:

Dr. María Uriarte is an Associate Professor in the Department for Ecology, Evolution and Environmental Biology at Columbia University. Her research examines the processes that drive forest dynamics in tropical regions. Emphasis is placed on understanding the effects of natural disturbance (e.g., hurricanes, fire) and human activities, particularly human land use, on forest regeneration. She explores these questions using a range of quantitative approaches and tools. Her current projects include studies of the dynamics of deforestation and reforestation in post-agricultural landscapes of Puerto Rico, the effects of fires in agriculture-forest mosaics in the Peruvian Amazon, and seed dispersal processes in fragmented forests in the Brazilian Amazon. Prior to Columbia, Uriarte was a Postdoctoral Fellow at the Cary Institute for Ecosystem Studies. She received an M.S. in Environmental Studies from Yale University, and her Ph.D in Ecology and Evolutionary Biology from Cornell University.



Technical Presentations – A Quick Reference

Please take note of start and end times for each track to plan your time accordingly.

MONDAY, APRIL 15 / 9:20 AM – 12:00 PM

Landscape Change 1 <i>(9:20 – 11:20 am)</i>	Urban 1 <i>(9:40 am – 12 pm)</i>	Ecosystem Services <i>(9:20 – 11:00 am)</i>	Landscape Assessment Tools <i>(9:20 – 11:20 am)</i>	* SYMPOSIUM: Landscape Genetics 1 <i>(9:30 am – 12 pm)</i>	* SYMPOSIUM: Forest Landscapes and Global Change <i>(9:20 – 11:20 am)</i>
CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B

MONDAY, APRIL 15 / 1:00 PM – 5:00 PM

Landscape Change 2 <i>(1:00 – 5:00 pm)</i>	Urban 2 <i>(1:00 – 4:40 pm)</i>	Biogeography <i>(1:00 – 4:20 pm)</i>	Conservation <i>(1:20 – 5:00 pm)</i>	* SYMPOSIUM: Landscape Genetics 2 <i>(1:00 – 5:00 pm)</i>	* SYMPOSIUM: Forest Modeling <i>(1:00 – 2:40 p.m.)</i>
CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B

TUESDAY, APRIL 16 / 9:20 AM – 12:00 PM

Remote Sensing 1 <i>(9:20 am – 12 pm)</i>	Forest Ecology <i>(9:20 am – 12 pm)</i>	Spatial Analysis: Movement <i>(9:20 – 11:40 am)</i>	Land Use Planning <i>(9:40 – 11:40 am)</i>	Global Change <i>(9:20 – 11:40 am)</i>	Fragmentation <i>(9:20 – 11:40 am)</i>
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL

WEDNESDAY, APRIL 17 / 9:20 AM – 12:00 PM

Remote Sensing 2 <i>(9:40 – 11:00 am)</i>	Disturbance <i>(9:20 – 11:20 am)</i>	Forest Landscapes <i>(9:40 – 11:40 am)</i>	Wildlife Ecology <i>(9:20 – 11:20 am)</i>	* SYMPOSIUM: Phenology 1 <i>(9:20 – 11:40 am)</i>	* SYMPOSIUM: Invasives <i>(9:40 am – 12 pm)</i>
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	TANNEHILL	CAPITOL C	CAPITOL VIEW TERRACE SOUTH

WEDNESDAY, APRIL 17 / 1:00 PM – 4:00 PM

Fire <i>(1:00 – 3:00 pm)</i>	Spatial Analysis <i>(1:00 – 4:00 pm)</i>	Riparian <i>(1:00 – 3:00 pm)</i>	Sustainable Management <i>(1:00 – 4:00 pm)</i>	* SYMPOSIUM: Phenology 2 <i>(1:00 – 4:20 pm)</i>	-
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	

Technical Presentations by Track, Date, Time

MONDAY, APRIL 15 / 9:20 AM – 12:00 PM

Landscape Change 1	Urban 1	Ecosystem Services	Landscape Assessment Tools	Landscape Genetics	Forest Landscapes and Global Change
CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B

Monday, April 15	Oral Session: Landscape Change 1 Chair: Kristen deBeurs
9:20 AM	Simulating Impacts of Biofuel Production on Landscapes in North Carolina <i>Jennifer Costanza, Robert Abt, Todd Earnhardt – NC State University; Alexa McKerrow, Jaime Collazo – US Geological Survey</i> Presenter: Jennifer K. Costanza, NC State University
9:40 AM	Vulnerability of Forests to Development in the Chesapeake Bay Watershed <i>Peter Claggett, U.S. Geological Survey</i> Presenter: Peter R. Claggett, U.S. Geological Survey
10:00 AM	A Deep-learning Approach to Cloud Detection with an Application to Forest Change Near Protected Areas <i>M. Joseph Hughes, University of Tennessee, Knoxville; Aaron Mishtal, University of Tennessee, Knoxville; Benjamin Goodrich, University of Tennessee, Knoxville; Daniel Hayes, Environmental Sciences Division, Oak Ridge National Laboratory</i> Presenter: M. Joseph Hughes, University of Tennessee, Knoxville
10:20 AM	Impacts of Drought on Cheatgrass (<i>Bromus tectorum</i> L.) Dynamics in Mixed Grass Prairie of Oklahoma <i>Dong Yan, Kirsten de Beurs – Department of Geography and Environmental Sustainability, University of Oklahoma; Bruce Hoagland, Department of Geography and Environmental Sustainability, University of Oklahoma and Oklahoma Biological Survey; Anthony Ryan, Department of Geography and Environmental Sustainability, University of Oklahoma</i> Presenter: Dong Yan, Department of Geography and Environmental Sustainability, University of Oklahoma
10:40 AM	A Tale of Two Landscapes: Climate Change in Northern Minnesota and Northern Lower Michigan Forests <i>Matthew Duveneck, Portland State University; Robert Scheller, Portland State University</i> Presenter: Matthew J Duveneck, Portland State University
11:00 AM	Modeling Russia's Agricultural Sustainability <i>Dong Yan, Kirsten de Beurs – University of Oklahoma</i> Presenter: Kirsten M de Beurs, University of Oklahoma

Monday, April 15	Oral Session: Urban 1 Chair: Alan Yeakley
9:40 AM	Modeling Human-vegetation Feedbacks Across Scales in Arid Urban Landscapes <i>Julie Ripplinger, Arizona State University; Janet Franklin, Arizona State University</i> Presenter: Julie Ripplinger, Arizona State University
10:00 AM	Avian Species Distribution in a Highly Urbanized Seoul District <i>Mintai Kim, Virginia Tech; Sukhwan Hong, Pusan University</i> Presenter: Mintai Kim, Virginia Tech
10:20 AM	Examination of Polycyclic Aromatic Hydrocarbons in an Urban Stormwater System and Bioaccumulation in Odonata <i>Lucas Heintzman, Scott Starr, Steve Collins, Todd Anderson, Nancy McIntyre – Texas Tech University</i> Presenter: Lucas J Heintzman, Texas Tech University
10:40 AM	Modeling the Spatio-temporal Dynamics of Africanized Honey Bee Colonies in an Urban Environment <i>Szu-Hung Chen, Andrew Birt, Maria Tchakerian, Robert Coulson – Texas A&M University, Knowledge Engineering Laboratory</i> Presenter: Szu-Hung Chen, Texas A&M University, Knowledge Engineering Laboratory

11:00 AM	Urban Socioeconomic Heterogeneity Influences the Pattern of Bat Activity in a Medium-sized City <i>Han Li, Kenneth Wilkins – Baylor University</i> Presenter: Han Li, Baylor University
11:20 AM	Preferences for Natural Resource Features at Multiple Scales Across a Metropolitan Area <i>Anita Morzillo, Oregon State University</i> Presenter: Anita T. Morzillo, Oregon State University
11:40 AM	Changes in Fragmentation and Connectivity in Vegetated Urban Riparian Areas in the Portland-Vancouver Metropolitan Region Over an 18 Year Period of Growth <i>Connie Ozawa, Portland State University; Denisse Fisher de Leon, Portland State University</i> Presenter: Alan Yeakley, Portland State University

Monday, April 15	Oral Session: Ecosystem Services Chair: Ines Ibanez
9:20 AM	Landscape Modeling to Predict the Biogeochemical and Climatic Environment of Acidic Streams in the Appalachian Mountains, USA <i>Paul Hessburg, USDS-FS, PNW Research Station; Nicholas Povak, USDS-FS, PNW Research Station</i> Presenter: Paul F Hessburg, Pacific Northwest Research Station, USDA Forest Service
9:40 AM	Emergent Properties of a Behavioral Simulation Model of Bumblebee Foraging <i>Colin Addis, University of Texas at Austin; Timothy Keitt, University of Texas at Austin</i> Presenter: Colin R Addis, Section of Integrative Biology, University of Texas at Austin
10:00 AM	Reconstructing Baseline Ecosystem Services in a Semi-arid Floodplain <i>Stephanie Tomscha, Sarah Gergel, Melanie Hilborn – University of British Columbia</i> Presenter: Stephanie A Tomscha, University of British Columbia
10:20 AM	Integrating Data Sources to Assess Biological Invasions: From Individual Performance to Species Distributions <i>Ines Ibanez, University of Michigan</i> Presenter: Ines Ibanez, University of Michigan
10:40 AM	Modeling and Prediction of Natural Gas Fracking Pad Landscapes <i>Qingmin Meng, Mississippi State University</i> Presenter: Qingmin Meng, Mississippi State University, Department of Geosciences

Monday, April 15	Oral Session: Landscape Assessment Tools Chair: Joseph Veech
9:20 AM	A Regression-based Method for Assessing the Representativeness of Landscapes <i>Joseph Veech, Texas State University; Michael Small, Texas State University</i> Presenter: Joseph A Veech, Texas State University
9:40 AM	Estimating Incidental Take in Climate-Altered Landscapes <i>Michael Flaxman, Geodesign Technologies, Inc.</i> Presenter: Michael Flaxman, Geodesign Technologies, Inc.
10:00 AM	Improving Landscape-Level Ecological Impact Evaluations: A Case Study for Solar Energy Development in the Western United States <i>Leroy Walston, Argonne National Laboratory; Kirk LaGor, William Vinikour, Robert Van Lonkhuysen, Brian Cantwell</i> Presenter: Leroy J. Walston, Argonne National Laboratory
10:20 AM	Identifying Landscape Metrics for Predicting Persistence of Gopher Tortoise (<i>Gopherus polyphemus</i>) Populations on a Military Installation Using a Spatially-explicit Individual-based Model <i>Kimberly Andrews, UGA SREL; Nathan Nibbelink, UGA; James Westervelt, US-Army CERL; Tracey Tuberville, UGA SREL</i> Presenter: Kimberly M. Andrews, University of Georgia
10:40 AM	GUIDOS: Tools for the Assessment of Pattern, Connectivity, and Fragmentation <i>Peter Vogt, Joint Research Centre, European Commission</i> Presenter: Peter Vogt, Joint Research Centre, European Commission
11:00 AM	Rapid Characterization of Vegetation Structure with a Microsoft Kinect Sensor <i>George Azzari, University of California, Irvine; Micheal Goulden, University of California, Irvine</i> Presenter: George M Azzari, University of California, Irvine

Monday, April 15	Symposium: Distribution, Functional Connectivity and Adaptation: Landscape Genetics in Dynamic Systems Conveners: Melanie Murphy, University of Wyoming; Nusha Keyghobadi, University of Western Ontario
9:30 AM	Introduction to Symposium; Background on Distributed Graduate Course
9:45 AM	Model Selection and Multimodel Inference in Multiple Linear Regression With Distance Matrices: A Cautionary Tale <i>Ian Acuña-Rodríguez, Universidad de La Serena; Tara Crew, University of Western Ontario; Lynne Gardner, Iowa State University; Karl Jarvis, Northern Arizona University; Michael Panasci, Texas Tech University</i> Presenter: Ryan P. Franckowiak, Trent University
10:00 AM	How Spatio-temporal Fluctuation of Habitat Connectivity Affect Amphibian Genetic Structure <i>Alexander Watts, Dept. of Ecology and Evolution, University of Toronto; Peter Schlichting, Department of Natural Resources Management, Texas Tech University; Shawn Billerman, Department of Zoology and Physiology, University of Wyoming; Brett Jesmer, Department of Zoology and Physiology, University of Wyoming; Steven Micheletti, School of Biological Sciences, Washington State University</i> Presenter: Alexander G Watts, Department of Ecology and Evolution, University of Toronto
10:15 AM	Functional Connectivity of Endangered Northern Idaho Ground Squirrels: A Gravity Model Approach <i>Victoria Zero, Adi Barocas, Melanie Murphy – University of Wyoming; Stephen Spear, Lisette Waits – University of Idaho</i> Presenter: Victoria H Zero, University of Wyoming
10:30 AM	Effects of Human Development and Site Productivity on the Landscape Genetics of Southern Idaho Ground Squirrels <i>Adi Barocas, Victoria Zero – University of Wyoming; Stephen Spear, Washington State University; Melanie Murphy, University of Wyoming; Lisette Waits, University of Idaho</i> Presenter: Adi Barocas, University of Wyoming
10:45 AM	Integrating Spatially Explicit Approaches to Detect Adaptive Loci in a Landscape Genomics Context <i>Matthew Jones, Ashley Teufel – University of Wyoming; Stéphane Joost, École Polytechnique Fédérale de Lausanne; Stéphanie Manel, Université Aix-Marseille</i> Presenter: Brenna R Forester, Duke University
11:00 AM	Identifying Genetic Signatures of Selection in a Non-model Species, Alpine Gentian (<i>Gentiana nivalis</i> L.), Using a Landscape Genetic Approach <i>Helen Bothwell, Northern Arizona University; Sarah Bisbing, Colorado State University; Nina Therkildsen, Technical University Denmark; Lindsay Crawford, Western University; Stéphanie Manel, Université Aix-Marseille; Nadir Alvarez, University of Lausanne; Rolf Holderegger, WSL Swiss Federal Research Institute</i> Presenter: Helen M Bothwell, Northern Arizona University
11:15 AM	Demographic Bottleneck Affects Landscape Genetic Inference in an Alpine Butterfly <i>Claudia Ciotir, Trent University; Kimberly Gilbert, University of British Columbia; Diana Weber, New College of Florida; Stephan Matter, University of Cincinnati; Nusha Keyghobadi, University of Western Ontario</i> Presenter: Serena A Caplins, Virginia Commonwealth
11:30 AM	Panel Discussion

Monday, April 15	Symposium: Forest Landscapes and Global Changes Convener: João Azevedo
9:20 AM	Forest Landscape Ecology and Global Change: An Introduction <i>João Azevedo, Maria Pinto – Centro de Investigação de Montanha, Instituto Politécnico de Bragança; Ajith Perera, Ontario Forest Research Institute, Canada</i> Presenter: João C. Azevedo, Centro de Investigação de Montanha, Instituto Politécnico de Bragança
9:40 AM	Climate as an Agent of Change in Forest Landscapes <i>Louis Iverson, Northern Research Station, US Forest Service; Anantha Prasad, Northern Research Station, US Forest Service; Stephen Matthews, Ohio State University and Northern Research Station, US Forest Service; Matthew Peters, Northern Research Station, US Forest Service</i> Presenter: Louis R. Iverson, Northern Research Station, US Forest Service
10:00 AM	Fire and Landscape Dynamics - Regional Perspectives of a Global Process <i>Francisco Rego, Joaquim Silva – Universidade Técnico de Lisboa, Instituto Superior de Agronomia, Centro de Ecologia Aplicada "Prof. Baeta Neves"</i> Presenter: Francisco C. Rego
10:20 AM	Climate and the Population Dynamics of Southern Pine Beetle <i>Andrew Birt, Robert Coulson, Maria Tchakerian – Knowledge Engineering Laboratory, Department of Entomology, Texas A&M University</i> Presenter: Andrew Birt
10:40 AM	Ecosystem Services Valuation and Forest Management: Challenges and Conservation Initiatives <i>Cristina Marta-Pedroso, João Azevedo – CIMO, Mountain Research Centre, Instituto Politécnico de Bragança, Portugal; Laporta Lia, Vânia Proença – IN+ Center, Environment and Energy Section, DEM, Instituto Superior Técnico, Technical University of Lisbon, Portugal</i> Presenter: Cristina M. Marta R. Pedroso
11:00 AM	Forest Landscape Ecology and Global Change: What are the Next Steps? <i>Ajith Perera, Ontario Forest Research Institute, Canada; Maria Pinto, João Azevedo – Centro de Investigação de Montanha, Instituto Politécnico de Bragança, Portugal</i> Presenter: João C. Azevedo, Centro de Investigação de Montanha, Instituto Politécnico de Bragança



MONDAY, APRIL 15 / 1:00 PM – 5:00 PM

Landscape Change 2	Urban 2	Biogeography	Conservation	Landscape Genetics (continued)	Forest Modeling
CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL	CAPITOL VIEW TERRACE NORTH	CAPITOL A & B

Monday, April 15	Oral Session: Landscape Change 2 Chair: David Theobald
1:00 PM	A Comparison of Current and Pre-settlement Jack Pine-dominated Ecosystems in Northern Lower Michigan, USA <i>Madelyn Tucker, Wayne State University; R. Corace, III, U.S. Fish & Wildlife Service; Daniel Kashian, Wayne State University</i> Presenter: Madelyn M Tucker, Wayne State University
1:20 PM	Selecting and Deploying Indicators for Sustainability of Bioenergy Systems <i>Virginia H. Dale, Latha Baskaran, Maggie R Davis, Mark Downing, Laurence Eaton, Rebecca A Efrogmson, Charles Garten, Michael R Hilliard, Yetta Jager, Keith L Kline, Matt H Langholtz, Paul N Leiby, Allen McBride, Debo Oladosu, Esther Parish, Peter Schweizer, and John Storey</i> Presenter: Virginia Dale
1:40 PM	Minding the Knowledge Gap: How Does Landowner Knowledge of Forest Biodiversity Influence Landscape Change? <i>Monica Dorning, Ross Meentemeyer – University of North Carolina at Charlotte</i> Presenter: Monica A Dorning, University of North Carolina at Charlotte
2:00 PM	Comparison of Land Change Models to Simulate Landscape Fragmentation <i>Jing Deng, China University of Geosciences; Wenwu Tang, UNCC; Ross Meentemeyer, UNCC</i> Presenter: Jing Deng, China University of Geosciences
2:20 PM	An Empirically-based Model of U.S. Landscape Integrity <i>David Theobald, National Park Service, Inventory & Monitoring Division; Sarah Reed, Wildlife Conservation Society</i> Presenter: David M Theobald, National Park Service, Inventory & Monitoring Division
2:40 PM	Effects of Shoreline Alteration and Land Use on the Abundance of Submerged Aquatic Vegetation <i>Elliott Kurtz, Stony Brook University; Christopher Patrick, Smithsonian Environmental Research Institute; Donald Weller, Smithsonian Environmental Research Institute</i> Presenter: Elliott B Kurtz, Stony Brook University
3:00 PM	Refreshment Break
3:20 PM	Land Cover and Vegetation Change Across the Cordillera Blanca Mountain Range of Northern Peru <i>Kenneth Young, University of Texas at Austin; Molly Polk, University of Texas at Austin; Asuncion Cano, San Marcos University, Lima, Peru; Blanca Leon, University of Texas at Austin</i> Presenter: Kenneth R Young, University of Texas at Austin
3:40 PM	An Integrated Land Change Model for Projecting Future Climate and Land Change Scenarios <i>Michael Wimberly, GIScCE Center of Excellence South Dakota State University; Terry Sohl, USGS Earth Resources Observation and Science (EROS) Center; Aashis Lamsal, Zihua Liu – GIScCE Center of Excellence South Dakota State University; Todd Hawbaker, USGS Geosciences and Environmental Change Science Center</i> Presenter: Michael C Wimberly, South Dakota State University
4:00 PM	Revisiting a Known Landscape: Deforestation Mediated by Road Network Growth, Social and Environmental Factors in Southwestern Brazilian Amazon During 1975-2011 <i>Rodrigo Begotti, Silvio de Barros Ferraz - Laboratório de Hidrologia Florestal, Escola Superior de Agricultura Luiz de Queiroz, Universidade de São Paulo; Carlos Peres, Centre for Biodiversity Research, School of Environmental Sciences, University of East Anglia</i> Presenter: Rodrigo A Begotti
4:20 PM	Using Species Distribution Models to Understand the Decline of a Great Plains Cyprinid: Conservation Implications for the Arkansas River Shiner <i>Thomas Worthington, Oklahoma Cooperative Fish and Wildlife Research Unit, Oklahoma State University; Timothy Grabowski, USGS, Texas Cooperative Fish and Wildlife Research Unit; Shannon Brewer, U.S. Geological Survey, Oklahoma Cooperative Fish and Wildlife Research Unit</i> Presenter: Thomas A Worthington
4:40 PM	Detecting Statewide Tree Mortality from the 2011 Texas Drought <i>Rosaleen March, Texas A&M University; Robert Washington-Allen, University of Tennessee; Georgianne Moore, Texas A&M University; Chris Edgar, Texas A&M Forest Service</i> Presenter: Rosaleen G March, Texas A&M University

Monday, April 15	Oral Session: Urban 2 Chair: Timothy Carter
1:00 PM	Ecology in Cities or Ecology of Cities: A Topical Review of Urban Greening Research and Planning in China for the Past Three Decades <i>Liang Chen, Lin Lin, Wei-Ning Xiang – East China Normal University</i> Presenter: Liang Chen, Shanghai Key Lab for Urban Ecological Processes and Eco-Restoration, East China Normal University
1:20 PM	The Roots That Bind: A Spatial Analysis of Forest Persistence and Woodland Owner Values at the Urban Frontier <i>Douglas Shoemaker, Portland State University; Todd Bendor, UNC Chapel Hill; Ross Meentemeyer, UNC Charlotte</i> Presenter: Douglas A Shoemaker, Portland State University
1:40 PM	Case Study: Physical Characteristics and Residents' Perception of Neighborhood Green Spaces in the Phoenix Metropolitan Area <i>Sohyun Park, Arizona State University</i> Presenter: Sohyun Park, Arizona State University
2:00 PM	Spatiotemporal Patterns of Urban Expansion in Beijing from 1972-2010: What is the Relative Importance of Physical, Socioeconomic, and Neighborhood Drivers? <i>Weiqi Zhou, Xiaoma Li, Zhiyun Ouyang – Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences</i> Presenter: Weiqi Zhou, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
2:20 PM	Landscape Art and Spatial Modeling for Urban Watershed Outreach <i>Timothy Carter, Butler University; Mary Miss, Mary Miss Studio; Ed Bachtta, Indianapolis Museum of Art; Jason Steckel, William's Creek Consulting</i> Presenter: Timothy L Carter, Center for Urban Ecology, Butler University
3:00 PM	Refreshment Break
3:20 PM	A Perspective Research on the Cooling Effect of Urban Green Space Areas with Trees in the City Scale <i>Fan Kong, Nanjing University</i> Presenter: Fan Hua Kong, International Institute for Earth System Science (ESSI), Nanjing University
3:40 PM	Patches of Wildlife Friendly Gardens in the Urban Matrix and their Importance for Birds <i>J. Amy Belaire, University of Illinois at Chicago; Emily Minor, University of Illinois at Chicago</i> Presenter: J. Amy Belaire, University of Illinois at Chicago
4:00 PM	Utilizing Geographic Information Systems to Evaluate Agriculture Potential in Indianapolis <i>Ryan Anderson, Butler University; Tim Carter, Butler University</i> Presenter: Ryan C Anderson, Butler University
4:20 PM	Socio-ecological Effects on Pollinator Visits to a Mobile Garden in Chicago, IL <i>David Lowenstein, University of Illinois at Chicago; Kevin Matteson, Miami University; Emily Minor, University of Illinois at Chicago</i> Presenter: David M Lowenstein, University of Illinois at Chicago

Monday, April 15	Oral Session: Biogeography Chair: Kate Behrman
1:00 PM	Assessing the Climatic Spatial and Temporal Drivers of Birds Distribution in North America <i>Morgane Barbet-Massin, Yale University; Walter Jetz, Yale University</i> Presenter: Morgane Barbet-Massin, Yale University
1:20 PM	Modeling Impacts of Climate Change on Distribution and Gene Flow of Threatened Tree <i>Kalopanax Septemlobus</i> in South Korea <i>Wanmo Kang, Department of Environmental Planning, Graduate School of Environmental Studies, Seoul National University; Emily Minor, Department of Biological Sciences, University of Illinois at Chicago; Chan-Ryul Park, Division of Forest Ecology, Korea Forest Research Institute; Downon Lee, Department of Environmental Planning, Graduate School of Environmental Studies, Seoul National University</i> Presenter: Wanmo Kang
1:40 PM	Effects of Projected Climate Change on Hybridization Zones of Pinon Pines and Junipers in Western North America <i>Jacob Gibson, Utah State University; Gretchen Moisen, Tracey Frescino – US Forest Service; Niklaus Zimmermann, Acilleas Psomas – Swiss Federal Research Institute WSL</i> Presenter: Thomas C Edwards, US Geological Survey
2:00 PM	Satellite-Derived Cloud Cover Frequency Strongest Predictor of Giant Sequoia Distribution <i>Eric Waller, University of California; Max Moritz, University of California</i> Presenter: Eric K Waller, University of California
2:20 PM	Substitutable Habitats: The Biophysical and Anthropogenic Drivers of an Exotic Bird's Distribution <i>Amelie Davis, Nur Malas, Emily Minor – University of Illinois at Chicago</i> Presenter: Amelie Y Davis, University of Illinois at Chicago
2:40 PM	Assessing the Sensitivity of a Managed Forest Landscape Located Between Temperate and Boreal Biomes (Hautes-Laurentides, Quebec, Canada) in the Context of Climate Change Using LANDIS-II <i>Dominic Cyr, Frederik Doyon, Christian Messier – Institute of Temperate Forest Research - Universite du Quebec en Outaouais; Christian Jauvin (scientific computing consultant), Pascal Rochon, Institute of Temperate Forest Research - Universite du Quebec en Outaouais</i> Presenter: Dominic Cyr, Institute of Temperate Forest Research - Universite du Quebec en Outaouais
3:00 PM	Refreshment Break
3:20 PM	Ecotypic Variation of Spatial Yield Stability in Switchgrass Across the Southern Great Plains <i>Kathrine Behrman, USDA-ARS; Timothy Keitt, University of Texas at Austin; Thomas Juenger, University of Texas at Austin; James Kiniry, USDA-ARS</i> Presenter: Kathrine D. Behrman, USDA-ARS
3:40 PM	Biogeography and Conservation of Caracal: Modelling Ecological Niches for Setting Conservation Priorities Areas in India <i>Randeep Singh, G.B. Pant Institute of Himalayan Environment and Development</i> Presenter: Randeep Singh
4:00 PM	Utilizing Landscape Genetics to Investigate Amphibian Gene Flow Across Species, Scale and Sampling Scheme <i>Stephanie Coster, Adrienne Kovach, Kimberly Babbitt – University of New Hampshire</i> Presenter: Stephanie Coster, University of New Hampshire

Monday, April 15	Oral Session: Conservation Chair: Alan Johnson
1:20 PM	Rapid Distribution Assessment of a Charismatic Species of International Conservation Concern Using Ensemble Model Predictions: The Red Panda (<i>Ailurus fulgens</i>) in the Hindu-Kush Himalaya <i>Ganga Regmi, Madan Suwal, Kamal Kandel – Global Primate Network-Nepal; Falk Hueftmann, University of Alaska-Fairbanks; Anna and Vincent Nekaris and Nijman, Oxford Brookes University, UK</i> Presenter: Ganga R. Regmi, Global Primate Network-Nepal
1:40 PM	Completion and Use of an Improved Fine-resolution Current Vegetation Map for Texas <i>Duane German, Texas Parks & Wildlife Department; Kim Ludeke, Texas Parks & Wildlife Department; Amie Treuer-Kuehn, Texas Parks & Wildlife Department; Jim Scott, Texas Water Development Board</i> Presenter: David D. Diamond, Missouri Resource Assessment Partnership
2:00 PM	Odonate Metacommunity Responses to a Gradient of Human Recreational Pressure <i>Aaron Hall, University of Toronto, Ecology and Evolutionary Biology; Shannon McCauley, University of Toronto Mississauga, Biology; Marie-Josée Fortin, University of Toronto, Ecology and Evolutionary Biology</i> Presenter: Aaron M. Hall, University of Toronto, Ecology and Evolutionary Biology
2:20 PM	Avian Community in a Pine Forest Along an Urban-rural/Agriculture-wildland Gradient <i>Myung-bok Lee, University of Georgia; John Carroll, University of Georgia</i> Presenter: Myung-Bok Lee, Warnell School of Forestry and Natural Resources, University of Georgia
2:40 PM	Integrating Historic and Current Distribution Models of an Endangered Species to Benefit Conservation <i>Michael Treglia, Texas A&M University; Robert Fisher, U.S. Geological Survey</i> Presenter: Michael L. Treglia, Texas A&M University
3:00 PM	Refreshment Break
3:20 PM	Evolutionary Diversity as an Indicator of Forest Function: A National Assessment from Forest Inventory Plots Across the United States <i>Kevin Potter, North Carolina State University; Christopher Woodall, USDA Forest Service, Northern Research Station</i> Presenter: Kevin M. Potter, North Carolina State University
3:40 PM	Using GIS to Integrate Biodiversity and Drinking Water Protection Goals <i>James Wickham, U.S. EPA; Curtis Flather, U.S. Forest Service</i> Presenter: James D Wickham, U.S. Environmental Protection Agency
4:00 PM	Southwestern Willow Flycatcher Habitat Suitability and Connectivity Under Simulated Conditions of Tamarisk Beetle Herbivory and Willow Restoration <i>James Tracy, Department of Entomology, Texas A&M University; Robert Coulson, Department of Entomology, Texas A&M University; Rosaleen March, Department of Ecosystem Science and Management, Texas A&M University</i> Presenter: James L Tracy, Department of Entomology; Texas A&M University
4:20 PM	Freshwater Mussel Metapopulations: Modeling the Effects of Habitat Degradation and Loss of Connectivity <i>Alan Johnson, Clemson University; Snehal Mhatre, Clemson University</i> Presenter: Alan R Johnson, Clemson University
4:40 PM	Landscape Context Influences Broad-scale Migratory Bird Species Distributions Across Seasonal Ranges and Climate Change Scenarios <i>Ilona Naujokaitis-Lewis, University of Toronto; Marie-Josée Fortin, University of Toronto</i> Presenter: Ilona R. Naujokaitis-Lewis, University of Toronto

Monday, April 15	Symposium: Distribution, Functional Connectivity and Adaptation: Landscape Genetics in Dynamic Systems Conveners: Melanie Murphy, University of Wyoming; Nusha Keyghobadi, University of Western Ontario
1:00 PM	Re-evaluating the Use of Causal Modeling with Partial Mantel Tests in Landscape Genetics <i>Samuel Cushman, USFS; Tzeidle Wasserman, NAU; Andrew Shirk, UW; Erin Landguth, UM</i> Presenter: Sam A. Cushman, USFS
1:15 PM	Testing Metapopulation Conditions in Boreal Chorus Frogs (<i>Pseudacris maculata</i>) Using Spatial Genotypic Data <i>Shawn Billerman, Brett Jesmer – University of Wyoming; Alexander Watts, University of Toronto; Peter Schlichting, Texas Tech University; Steven Micheletti, Washington State University</i> Presenter: Shawn M Billerman, University of Wyoming
1:30 PM	Multi-species Landscape Genetic Analysis of Connectivity for Coral Reefs of the Hawaiian Archipelago <i>Kimberly Selkoe, Robert Toonen – Hawaii Institute of Marine Biology</i> Presenter: Kimberly A Selkoe, Hawaii Institute of Marine Biology
1:45 PM	Embracing Climate Change Uncertainty: Chorus Frog Functional Connectivity in the Front Range <i>Melanie Murphy, University of Wyoming; W Funk, Colorado State University; Erin Muths, USGS</i> Presenter: Melanie A Murphy, University of Wyoming
2:00 PM	Node Properties of Landscape Genetic Networks <i>Jeff Bowman, Erin Koen, Paul Wilson – Trent University</i> Presenter: Jeff Bowman, Trent University
2:15 PM	Landscape Genomics and the Separation of Adaptive and Neutral Components of Spatial Genetic Variation <i>Patrick James, Université de Montréal; Steven Walker, McMaster University</i> Presenter: Patrick James, Université de Montréal
2:30 PM	Effects of Habitat Composition and Configuration on Genetic Structure of the Pitcher Plant Midge Across Spatial Scales <i>Katie Millette, Western University, Canada; Nusha Keyghobadi, Western University, Canada</i> Presenter: Nusha Keyghobadi, Western University, Canada
2:45 PM	The Effects of Seasonal Habitat Use on Functional Connectivity in Eastern Indigo Snakes (<i>Drymarchon couperi</i>) in Georgia <i>Stephen Spear, Dirk Stevenson, Chris Jenkins – The Orianne Society; Brita Olson, Lissette Waits – University of Idaho</i> Presenter: Stephen F. Spear, The Orianne Society
3:00 PM	Refreshment Break
3:15 PM	Detection of Macroorganisms Across Environmental Gradients Using Aquatic Environmental DNA <i>Caren Goldberg, Katherine Strickler, Alexander Fremier, Lissette Waits – University of Idaho</i> Presenter: Caren S Goldberg, University of Idaho
3:30 PM	Roadkill Causes Changes in Genetic Diversity in Spatially Explicit Simulations <i>Samuel Cushman, Rocky Mountain Research Station, US Forest Service</i> Presenter: Karl J. Jarvis, Northern Arizona University
3:45 PM	Beyond the Snapshot: Landscape Genetics of Black Bears in Michigan's NLP Using Time Series Data <i>Hope Draheim, Michigan State University; Jennifer Moore, Grand Valley State University; Kim Scribner, Michigan State University; Scott Winterstein, Michigan State University; Dwayne Etter, Michigan Department of Natural Resources</i> Presenter: Hope M. Draheim, Michigan State University
4:00 PM	Landscape Features Affect Gene Flow of American Marten (<i>Martes americana</i>) Following Reintroduction <i>Paige Howell, Michigan State University; Bronwyn Williams, Southern Illinois University; Kim Scribner, Michigan State University</i> Presenter: Paige E Howell, Michigan State University
4:15 PM	Quantifying Past and Present Connectivity Illuminates a Rapidly-changing Landscape for the African Elephant <i>Clinton Epps, Oregon State University; Samuel Wasser, University of Washington; Jonah Keim, Matrix Solutions, Inc.; Benezeth Mutayoba, Sokoine University of Agriculture; Justin Brashares, University of California-Berkeley</i> Presenter: Clinton W Epps, Oregon State University
4:30 PM	Panel Discussion

Monday, April 15	Symposium: Forest Modeling Convener: Ajith Perera
1:00 PM	Modeling Defoliation Disturbance Across Forested Landscapes: A Case Study of Spruce Budworm <i>Brian R. Sturtevant, USDA Forest Service; Barry Cooke, Canadian Forest Service; Daniel Kneeshaw, University de Quebec a Montreal; David MacLean, University of New Brunswick</i> Presenter: Brian R. Sturtevant, USDA Forest Service, Northern Research Station
1:20 PM	Modelling Windthrow at the Stand and Landscape Scale <i>Stephen Mitchell, University of British Columbia; Jean-Claude Ruel, Laval University</i> Presenter: Stephen J Mitchell, University of British Columbia, Faculty of Forestry
1:40 PM	Modeling Wildfire Regimes in Forest Landscapes: How Well Can We Abstract Reality? <i>Donald McKenzie, US Forest Service; Ajith Perera, Ontario Forest Research Institute</i> Presenter: Donald McKenzie, US Forest Service
2:00 PM	Modeling Forest Succession at the Landscape Level: Concepts, Applications and Challenges <i>Michael Drescher, School of Planning, University of Waterloo; George Perry, School of Environment & School of Biological Sciences, University of Auckland; Ajith Perera, Ontario Forest Research Institute, Ontario Ministry of Natural Resources</i> Presenter: Ajith H Perera, Ontario Forest Research Institute, Ontario Ministry of Natural Resources
2:20 PM	Modeling Forest Landscape Patterns: Where To From Here? <i>Ajith H. Perera, Ontario Forest Research Institute; Brian Sturtevant, US Forest Service</i> Presenter: Ajith H. Perera, Ontario Forest Research Institute



Technical Presentations by Track, Date, Time

TUESDAY, APRIL 16 / 9:20 AM – 12:00 PM

Remote Sensing 1	Forest Ecology	Spatial Analysis: Movement	Land Use Planning	Global Change	Fragmentation
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	CAPITOL D	TANNEHILL

Tuesday, April 16	Oral Session: Remote Sensing 1 Chair: Michael Palace
9:20 AM	<p>Mapping Eastern and Carolina Hemlocks to Estimate Potential Forest Gaps Following Hemlock Woolly Adelgid Infestations in the Southern Appalachian Mountains <i>Tuula Kantola, Texas A&M; Maria Tchakerian, Texas A&M; Päivi Lyytikäinen-Saarenmaa, University of Helsinki; Robert Coulson, Texas A&M</i> Presenter: Tuula A Kantola, Texas A&M</p>
9:40 AM	<p>Detection of Amazonian Black Earth Sites Using Satellite Image Data <i>Michael Palace, University of New Hampshire, Earth Systems Research Center; Crystal McMichael, University of New Hampshire, Earth Systems Research Center; Mark Bush, Florida Institute of Technology, Department of Biological Sciences, Melbourne, FL; Bobby Braswell, Applied Geosolutions, Durham, NH; Stephen Hagen, Applied Geosolutions, Durham, NH</i> Presenter: Michael W Palace, Earth System Research Center</p>
10:00 AM	<p>Quantifying Forest Vertical Structure to Determine Bird Habitat Quality in the Greenbelt Corridor Along the Elm Fork of the Trinity River, North Texas <i>Shiho Matsubayashi, University of North Texas</i> Presenter: Shiho Yamamoto Matsubayashi, University of North Texas</p>
10:20 AM	<p>Estimation of Croplands in West Africa: Preliminary Results <i>Pradeep Adhikari, Department of Geography and Environmental Sustainability, University of Oklahoma; Kirsten de Beurs, Department of Geography and Environmental Sustainability, University of Oklahoma</i> Presenter: Pradeep Adhikari, University of Oklahoma</p>
10:40 AM	<p>Quantifying Drought-induced Canopy Loss at Multiple Scales in Texas <i>Amanda Schwantes, Duke University-Nicholas School of the Environment; Jennifer Swenson, Duke University-Nicholas School of the Environment; Robert Jackson, Duke University-Nicholas School of the Environment</i> Presenter: Amanda M Schwantes, Duke University - Nicholas School of the Environment</p>
11:00 AM	<p>High Spatial Resolution Imagery to Map Changes in Vegetation Dynamics: The Case for the World Largest Mangrove <i>Abu Mahmood, Daniel Donoghue, Peter Atkins - Durham University</i> Presenter: Abu RJ Mahmood, Durham University</p>
11:20 AM	<p>Global Consensus Land Cover Data for Spatial Biodiversity Research <i>Mao-Ning Tuanmu, Yale University; Walter Jetz, Yale University</i> Presenter: Mao-Ning Tuanmu, Yale University</p>
11:40 AM	<p>Modeling Landscape Structure Response Across a Gradient of Land Cover Intensity <i>Amy Frazier, University at Buffalo; Le Wang, University at Buffalo</i> Presenter: Amy E Frazier, University at Buffalo - Geography Department</p>

Tuesday, April 16	Oral Session: Forest Ecology Chair: Jitendra Kumar
9:20 AM	Logging Legacies Affect Insect Pollinator Communities in the Southern Appalachians <i>Monica Turner, University of Wisconsin-Madison; Scott Pearson, Mars Hill College</i> Presenter: Michelle M Jackson, University of Wisconsin-Madison
9:40 AM	Application of Multilevel Spatially-explicit Survival Analysis to Identify Drivers of Forest Disease Incidence and Host Mortality Following Invasion of an Emerging Plant Pathogen <i>Sarah Haas, University of North Carolina; Whalen Dillon, University of North Carolina; Ross Meentemeyer, University of North Carolina</i> Presenter: Sarah E Haas, University of North Carolina at Charlotte
10:00 AM	Interactive Effects of Climate and Disturbance on Landscape-scale Range Dynamics of Rocky Mountain Tree Species <i>Katherine Renwick, Colorado State University; Monique Rocca, Colorado State University</i> Presenter: Katherine M Renwick, Colorado State University
10:20 AM	A Framework for the Discrimination of Non-regenerating and Developmental Gaps in Old-growth Temperate Deciduous Forests Using Airborne LiDAR Data <i>Jean-Francois Senecal, Université du Québec à Montréal; Frederik Doyon, Université du Québec en Outaouais; Benoit St-Onge, Université du Québec à Montréal</i> Presenter: Jean-Francois Senecal, UQAM
10:40 AM	The Variability of Forest Fuels and Patterns of Trees Influence the Heterogeneity of Fire Behavior and Effects in Young Lodgepole Pine Forests <i>Kellen Nelson, University of Wyoming; Daniel Tinker, University of Wyoming; Chad Hoffman, Colorado State University; Monica Turner, University of Wisconsin-Madison; William Romme, Colorado State University</i> Presenter: Kellen N Nelson, Program in Ecology, University of Wyoming
11:00 AM	The Role of Microhabitat in the Establishment of Abies Magnifica Seedlings on the Eastern Slope of the Sierra Nevada <i>Michelle Hochrein, Department of Geography, University of Nevada, Reno; Scott Bassett, Department of Geography, University of Nevada, Reno; Elizabeth Leger, Department of Natural Resources and Environmental Science, University of Nevada, Reno</i> Presenter: Michelle K Hochrein, University of Nevada, Reno
11:20 AM	Fire and the Persistence of Montane Chaparral in Mixed Conifer Forests in the Southern Cascades, Lassen Volcanic National Park, CA <i>Catherine Airey, Pennsylvania State University; Alan Taylor, Pennsylvania State University</i> Presenter: Catherine Airey, Penn State University
11:40 AM	Imputation of Continuous Tree Suitability Over the Continental United States from Sparse Measurements <i>William Hargrove, USDA Forest Service; Forrest Hoffman, Oak Ridge National Laboratory</i> Presenter: Jitendra Kumar, Oak Ridge National Laboratory

Tuesday, April 16	Oral Session: Spatial Analysis: Movement Chair: Jennifer Miller
9:20 AM	Sensitivity Analysis of an Intelligent Agent-based Simulation of Elk Migration: A Cyberinfrastructure-enabled Supercomputing Approach <i>Wenwu Tang, University of North Carolina at Charlotte; Meijuan Jia, University of North Carolina at Charlotte; David Bennett, University of Iowa</i> Presenter: Wenwu Tang, University of North Carolina at Charlotte
9:40 AM	Arctic Fox in Industrial Landscapes: A Summer-winter Cross-site Comparison Between Arctic Russia and Arctic Alaska, Interpreted with a Future Conservation Management Context <i>Dmitry Korobitsyn, Northern (Arctic) Federal University Russia; Emil Larsson, Umea University Sweden; Falk Huettmann, University of Alaska-Fairbanks</i> Presenter: Dmitry V Korobitsyn, Northern (Arctic) Federal University
10:00 AM	Using Observed Seabird Fallout Records to Infer Patterns of Attraction to Artificial Light <i>Jeff Troy, Texas State University; Nick Holmes, Kauai Endangered Seabird Recovery Project; Joseph Veech, Texas State University; M Green, Texas State University</i> Presenter: Jeff R Troy, Texas State University
10:20 AM	Prioritizing Areas for Connectivity Conservation in the Face of Future Uncertainty: Managing for the Worst-case Scenario <i>Miguel Acevedo, University of Florida-School of Natural Resources and Environment; Jorge Sefair, University of Florida-Department of Industrial and Systems Engineering; J. Cole Smith, University of Florida-Department of Industrial and Systems Engineering; Robert Fletcher, University of Florida-Department of Wildlife Ecology and Conservation</i> Presenter: Miguel A Acevedo, University of Florida
10:40 AM	Regionalization of White-tailed Deer Movement Patterns Using High Resolution Telemetry Data <i>Peng Gao, John Kupfer – Department of Geography, University of South Carolina; Stephanie Hasapes, Louisiana Department of Wildlife and Fisheries; Xi Zhi, Diansheng Guo – Department of Geography, University of South Carolina</i> Presenter: Peng Gao, University of South Carolina
11:00 AM	Incorporating Movement in a Dynamic Landscape in Species Distribution Modelling <i>Paul Holloway, University of Texas at Austin; Jennifer Miller, University of Texas at Austin</i> Presenter: Paul Holloway, University of Texas at Austin
11:20 AM	A Novel Framework for Analyzing Interactions Between Individuals: A Case Study Using Brown Hyenas in Botswana <i>Jennifer Miller, University of Texas</i> Presenter: Jennifer A Miller, University of Texas

Tuesday, April 16	Oral Session: Land Use Planning Chair: Beth Mills
9:40 AM	How Green is the Green Belt? <i>Agata Cieszewska, Warsaw University of Life Sciences, Department of Landscape Architecture</i> Presenter: Agata Cieszewska, Warsaw University of Life Sciences, Department of Landscape Architecture
10:00 AM	Land Use Suitability Analysis for La Bajada Ranch, Santa Fe, New Mexico <i>Beth Mills, Santa Fe County</i> Presenter: Beth H Mills, Santa Fe County
10:20 AM	To Conserve or to Develop: The Measures of Nature Conservation in Urban Areas <i>Renata Giedych, Warsaw University of Life Sciences, Department of Landscape Architecture; Agata Cieszewska, Warsaw University of Life Sciences, Department of Landscape Architecture</i> Presenter: Agata Cieszewska, Warsaw University of Life Sciences, Department of Landscape Architecture
10:40 AM	Land Use/Land Cover Change Analysis of Makurdi Town Using Remotely Sensed Data and Geographic Information System (GIS) <i>Marcellinus Hula, Department of Geography, Benue State University, Makurd</i> Presenter: Marcellinus A Hula, Benue State University

11:00 AM	<p>Landscape Level Rehabilitation for Improved Ecosystem Services and Agricultural Productivity in Tigray, Ethiopia <i>Kiros Hadgu, World Agroforestry Centre; Muluberhan Biedemariam, Land Use and Environmental Protection Authority; Jeremias Mowo, World Agroforestry Centre; Emiru Berhane, Mekelle University; Ermias Betemariam, World Agroforestry Centre</i> Presenter: Kiros M Hadgu, World Agroforestry Centre</p>
11:20 AM	<p>Using Rainfall-runoff Models to Characterize the Flow Regime of Desert Streams in the U.S. Southwest <i>Russell Lyon, Lainie Levick, David Guertin - University of Arizona; David Goodrich, Ian Burns - USDA Agricultural Research Station</i> Presenter: Russell A Lyon, University of Arizona</p>

Tuesday, April 16	<p>Oral Session: Global Change Chair: Ofir Levy</p>
9:20 AM	<p>Modeling the Costs of Thermoregulation in Lizards: The Interplay Between Competition, Climate and Vegetation Cover in <i>Sceloporus Undulatus</i> <i>Ofir Levy, Arizona State University; Lauren Buckley, University of North Carolina at Chapel Hill; Timothy Keitt, The University of Texas at Austin; Michael Angilletta, Arizona State University</i> Presenter: Ofir Levy, Arizona State University</p>
9:40 AM	<p>Superstorm Sandy, Environmental Disasters, and Scientific Data Collection: Planning to Make the Most of a Bad Situation <i>Michael Bradley, Charles LaBash, Greg Bonyngne - University of Rhode Island; Erica Tefft, University of Rhode Island; Angelica Murdukhayeva, EPA</i> Presenter: Peter August, University of Rhode Island</p>
10:00 AM	<p>A Global Quantitative Method for Determining Suitable Seed Transfer Locations Under Climate Change <i>Kevin Potter, North Carolina State University; William Hargrove, USDA Forest Service, Southern Research Station</i> Presenter: Kevin M. Potter, North Carolina State University</p>
10:20 AM	<p>Incorporating Spatial Heterogeneity in Climate Change and Landscape Features Into Rapid Climate Change Vulnerability Assessments <i>Christopher Nadeau, New York Cooperative Fish and Wildlife Research Unit, Department of Natural Resources, Cornell University; Angela Fuller, US Geological Survey, New York Cooperative Fish and Wildlife Research Unit, Department of Natural Resources, Cornell University</i> Presenter: Christopher Nadeau</p>
10:40 AM	<p>A Bucket List for Landscape Ecology <i>John Wiens, University of Western Australia and PRBO Conservation Science</i> Presenter: John A Wiens, University of Western Australia and PRBO Conservation Science</p>
11:00 AM	<p>Can Rapid Screening and Comparing Risks of Climate Change Vulnerabilities to Forests Provide Insights for Ecosystem Services? <i>Stephen Matthews, School of Environment & Natural Resources, Ohio State University; Louis Iverson, Northern Research Station, US Forest Service; Anantha Prasad, Northern Research Station, US Forest Service; Matthew Peters, Northern Research Station, US Forest Service</i> Presenter: Stephen N Matthews, School of Environment and Natural Resources, Ohio State University</p>
11:20 AM	<p>Ecophysiological Characteristics of Target Shrub Species for Restoration of Lower Rio Grande Shrubland Ecosystems with Continuing Climate Change <i>Arjun Adhikari, Baylor University; Joseph White, Baylor University</i> Presenter: Arjun Adhikari, Department of Biology, Baylor University</p>

Tuesday, April 16	Oral Session: Fragmentation Chair: Eugenio Arima
9:20 AM	Suspended Development: Disentangling Effects of Habitat Alteration and Human Habitation on Birds <i>Camille Beasley, University of Georgia; Jeffrey Hepinstall-Cymerman, University of Georgia</i> Presenter: Camille J Beasley, University of Georgia
9:40 AM	Reserve Size Alters Community Assembly, Diversity and Dynamics <i>Jesse Lasky, Earth Institute, Columbia University; Timothy Keitt, Section of Integrative Biology, University of Texas at Austin</i> Presenter: Jesse R Lasky, Earth Institute, Columbia University
10:00 AM	Landscape Alternatives Along the Grijalva Usumacinta Lowlands for Two Howler Monkey Species (<i>Alouatta pigra</i> and <i>A. Palliata mexicana</i>) Populations Due to Landscape Transformation <i>Lilly Gama, Universidad Juarez Autonoma de Tabasco; Hilda Diaz-Lopez, Universidad Juarez Autonoma de Tabasco; Coral Pacheco-Figueroa, Universidad Juarez Autonoma de Tabasco; Yazmin Rosique, Universidad Juarez Autonoma de Tabasco; J Valdez-Leal, Universidad Juarez Autonoma de Tabasco</i> Presenter: Lilly M Gama, Universidad Juarez Autonoma de Tabasco
10:20 AM	Modeling and Mapping Landscape Pattern Resilience <i>Kurt Riitters, US Forest Service; James Wickham, US Environmental Protection Agency; Danny Lee, US Forest Service</i> Presenter: Kurt H Riitters, Southern Research Station, U.S. Forest Service
10:40 AM	Multi-scale Explanation of the Amazon Forest Fragmentation <i>Eugenio Arima, The University of Texas at Austin; Robert Walker, Michigan State University</i> Presenter: Eugenio Y Arima, The University of Texas at Austin
11:00 AM	Multi-scale Effects and Scale Dependency of Biodiversity Patterns in a Heterogeneous Landscape Along a Sharp Climatic Gradient <i>Yaron Ziv, Itamar Giladi, Gal Yaacobi, Yoni Gavish, Guy Rotem – Ben-Gurion University</i> Presenter: Yaron D Ziv, Ben-Gurion University
11:20 AM	Disentangling the Effects of Roads on Connectivity of Natural Populations: Insights From Molecular Road Ecology <i>Adrienne Kovach, University of New Hampshire; Lindsey Fenderson, U.S. Fish & Wildlife Service; Charlotte Gabrielsen, University of New Hampshire; Jennifer Walsh, University of New Hampshire</i> Presenter: Adrienne Kovach, University of New Hampshire

Technical Presentations by Track, Date, Time

WEDNESDAY, APRIL 17 / 9:20 AM – 12:00 PM

Remote Sensing 2	Disturbance	Forest Landscapes	Wildlife Ecology	Phenology 1	Invasives
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	TANNEHILL	CAPITOL C	CAPITOL VIEW TERRACE SOUTH

Wednesday, April 17	Oral Session: Remote Sensing 2
	Chair: Sarah Goslee
9:40 AM	<p>Accuracy Estimation of Attributes Describing Forested Landscapes Using Tree Level Information</p> <p>Wesley Palmer, Louisiana Tech University; Dan Nitu, Forest Research and Management Institute; Daniel Cooke, Louisiana Tech University; Bogdan Strimbu, Louisiana Tech University</p> <p>Presenter: Bogdan M Strimbu, Louisiana tech University</p>
10:00 AM	<p>Remote Detection of Harvesting of Nonindustrial Private Forests in the Western Upper Peninsula of Michigan (USA) Using Landsat Annual Series</p> <p>Riccardo Tortini, Michigan Technological University; Audrey Mayer, Michigan Technological University</p> <p>Presenter: Audrey L Mayer, Michigan Technological University</p>
10:20 AM	<p>Mapping Vegetation Types Along an Elevational Gradient at Mt. Kasigau, Kenya Using Multi-date Landsat Images and Ancillary Data</p> <p>John K Maingi, Kimberly Medley – Miami University</p> <p>Presenter: John K Maingi, Miami University</p>
10:40 AM	<p>Integrated Wetland Mapping Using Landsat TM/ETM+ and SRTM Topographic Derivatives in the Ethiopian Highlands</p> <p>Alemayehu Midekisa, Michael Wimberly, Gabriel Senay – Geographic Information Science Center of Excellence, South Dakota State University</p> <p>Presenter: Alemayehu A Midekisa, SDSU</p>

Wednesday, April 17	Oral Session: Disturbance
	Chair: Robert Gardner
9:20 AM	<p>The Role of Spatial Dynamics and Species Life-history Traits in Preserving Diversity When Environments are Non-stationary</p> <p>Katharina Engelhardt, Andrew Elmore, Daniel Cadol – Appalachian Laboratory</p> <p>Presenter: Robert H Gardner, Appalachian Laboratory, Univ. of Maryland Center for Environmental Science</p>
9:40 AM	<p>Compound Disturbances and Their Impact on Post-fire Carbon and Charcoal Pools</p> <p>Brian Buma, University of Colorado</p> <p>Presenter: Brian J Buma</p>
10:00 AM	<p>Inter-Annual Hydrological Variability Modifies Responses of Wetland Distribution to Biotic and Abiotic Predicators</p> <p>Xiaoli Dong, Nancy Grimm, Kiona Ogle – Arizona State University</p> <p>Presenter: Xiaoli Dong, Arizona State University</p>
10:20 AM	<p>Megafires: Fuel Conditions and Climate that Drive Extreme Wildfire Events in the Western United States</p> <p>E. Natasha Stavros, University of Washington; John Abatzoglou, University of Idaho; Narasimhan Larkin, Donald McKenzie, E. Ashley Steel – Pacific Wildland Fire Sciences Lab, USDA Forest Service</p> <p>Presenter: E. Natasha Stavros, University of Washington</p>
10:40 AM	<p>Characterising Anthropogenic Disturbance Patterns for the Boreal Forests of Alberta, Canada</p> <p>Paul Pickell, University of British Columbia; David Andison, Bandaloop Landscape-Ecosystem Services; Nicholas Coops, University of British Columbia</p> <p>Presenter: Paul D Pickell, University of British Columbia</p>
11:00 AM	<p>Idiosyncratic Biodiversity Responses Along a Historic Pollution Gradient</p> <p>Madhur Anand, University of Guelph</p> <p>Presenter: Madhur Anand, School of Environmental Sciences, University of Guelph</p>

Wednesday, April 17	Oral Session: Forest Landscapes Chair: Frederic Doyon
9:40 AM	Cross-scale Spatial Heterogeneity of Forest Structures Under an Intermediate Disturbance Regime in Temperate Mixedwoods <i>Frederik Doyon, Marie-Ève Roy – Institute of Temperate Forest Research, Université du Québec en Outaouais; Rudiger Markgraf, Université du Québec à Montréal</i> Presenter: Frederik Doyon, Université du Québec en Outaouais, Département des Sciences naturelles
10:00 AM	Breeding Birds' Distribution Pattern in Different Landuse in Mountainous Hills in Nepal <i>Tej Basnet, Central Department of Zoology, Tribhuvan University; Khadga Basnet, Central Department of Zoology, Tribhuvan University; Odd Jacobsen, Bergen University College</i> Presenter: Tej Basnet, Central Department of Zoology Tribhuvan University
10:20 AM	Historical Patterns and Drivers of Land Conservation in Northern New England: 1850 -2010 <i>Spencer Meyer, University of Maine; Christopher Cronan, University of Maine; Robert Lilieholm, University of Maine; Michelle Johnson, University of Maine; David Foster, Harvard University</i> Presenter: Spencer R. Meyer, University of Maine
10:40 AM	Roosting Behavior and Habitat Selection of Pteropus Giganteus Reveals Potential Links to Nopah Virus Epidemiology <i>Micah Hahn, University of Wisconsin-Madison; Jonathan Epstein, EcoHealth Alliance; Emily Gurley, International Centre for Diarrhoeal Disease Research; Steve Luby, International Centre for Diarrhoeal Disease Research (current: Stanford University); Jonathan Patz, University of Wisconsin-Madison</i> Presenter: Micah Hahn, University of Wisconsin-Madison, Center for Sustainability and the Global Environment
11:00 AM	Modeling Endemic Bark Beetle Populations in Southwestern Ponderosa Pine Forests <i>Christopher Garza, Texas A&M University; Barbara Bentz, United States Forest Service; Andrew Birt, Robert Coulson, Diana Doan-Crider – Texas A&M University</i> Presenter: Christopher A Garza, Texas A&M University
11:20 AM	Detecting Rapid Forest Disturbance in a Mixed-forest Landscape: Southeast Oklahoma 2000-2011 <i>Trung Tran, Kirsten de Beurs, Jason Julian – Department of Geography and Environmental Sustainability, University of Oklahoma</i> Presenter: Trung Tran, Department of Geography and Environmental Sustainability, University of Oklahoma

Wednesday, April 17	Oral Session: Wildlife Ecology Chair: Janet Franklin
9:20 AM	Evaluating Climate Change Vulnerability of Reptiles and Amphibians in the Sandhills Ecoregion, USA, Using the NatureServe Assessment Tool <i>Tracey Tuberville, UGA SREL; Kimberly Andrews, UGA SREL</i> Presenter: Tracey D Tuberville, University of Georgia
9:40 AM	Estimating Landscape Resistance to Dispersal <i>Tabitha A Graves, Colorado State University; Richard Chandler, U.S. Geological Survey Patuxent Wildlife Refuge; J. Andrew Royle, U.S. Geological Survey Patuxent Wildlife Refuge; Paul Beier, Northern Arizona University; Katherine Kendall, U.S. Geological Survey Northern Rocky Mountain Science Center</i> Presenter: Tabitha A Graves, Colorado State University
10:00 AM	The Influence of Landscape Characteristics on Metapopulation Persistence of an Endangered Species <i>Phillip Hughes, USFWS; James Hines, USGS-PWRC; James Nichols, USGS-PWRC</i> Presenter: Mitchell J Eaton, USGS, New York Cooperative Research Unit
10:20 AM	Changing Forest Cover in the Northern Bahamas Affects the Availability of Habitat for Migratory Landbirds <i>Janet Franklin, Arizona State University; David Steadman, Florida Museum of Natural History</i> Presenter: Janet Franklin, Arizona State University, School of Geographical Sciences and Urban Planning
10:40 AM	Do Thresholds in Species Occurrence Exist in Relation to Landscape Composition and Configuration? <i>Andrew Kroll, Weyerhaeuser NR; Jay Jones, Weyerhaeuser NR</i> Presenter: Andrew J Kroll, Weyerhaeuser NR
11:00 AM	Patch Dynamics in a Heterogeneous Landscape: Illustrated by Short-lived Galliform <i>Kelsey Drey, Mississippi State University; James Martin, Mississippi State University</i> Presenter: Kelsey M Drey, Mississippi State University

Wednesday, April 17	Symposium: Phenology 1 Convener: William Hargrove
9:20 AM	Aoristic Analysis for Land Surface Phenology Geoffrey Henebry, South Dakota State University Presenter: Geoffrey M Henebry, South Dakota State University
9:40 AM	Transient Synchrony and Complex Phenology in Plankton Time Series Revealed by Wavelet Analysis Timothy Keitt, University of Texas Presenter: Timothy Keitt, University of Texas
10:00 AM	Developing Phenoregion Maps Using Remotely Sensed Imagery Forrest Hoffman, Oak Ridge National Laboratory; Jitendra Kumar, Oak Ridge National Laboratory; William Hargrove, USDA Forest Service; Joesph Spruce, NASA Stennis Space Center; Richard Mills, Oak Ridge National Laboratory Presenter: Forrest M Hoffman, Oak Ridge National Laboratory
10:20 AM	Using Land Surface Phenology for National Mapping of the Occurrence and Health of Evergreen and Deciduous Forests William Hargrove, USDA Forest Service; Joseph Spruce, NASA Stennis; Steven Norman, USDA Forest Service; Jitendra Kumar, ORNL; Forrest Hoffman, ORNL Presenter: William W Hargrove, Eastern Forest Threat Center, USDA Forest Service
10:40 AM	Chirp Chirp: Deriving Spring Green-up From Social Media Kirsten de Beurs, University of Oklahoma Presenter: Kirsten M de Beurs, University of Oklahoma
11:00 AM	Hydroclimatic Controls on Leaf Senescence in a Humid Temperate Broadleaf Forest Taehee Hwang, Lawrence Band, Conghe Song – University of North Carolina at Chapel Hill; Paul Bolstad, University of Minnesota, Saint Paul; James Vose, Coweeta Hydrologic Laboratory, USDA Forest Service Presenter: Taehee Hwang, University of North Carolina at Chapel Hill
11:20 AM	Implementation of Prognostic Leaf Area Index in a Land Surface Model to Improve Water, Energy and Carbon Fluxes Atul Jain, University of Illinois; Bassil El-Masri, University of Illinois; Ying Jin, University of Illinois Presenter: Atul Jain, University of Illinois

Wednesday, April 17	Symposium: Invasives Conveners: Bryan Pijanowski and Songlin Fei
9:40 AM	Predicting Regional Invasive Dynamic Processes (PRIDE) Songlin Fei, Department of Forestry and Natural Resources, Purdue University; Bryan Pijanowski, Department of Forestry and Natural Resources, Purdue University; Qinfeng Guo, Southern Research Station, USDA Forest Service; Christopher Oswald, Southern Research Station, USDA Forest Service Presenter: Bryan Pijanowski, Purdue University
10:00 AM	Region-wide Monitoring of Invasive Plants in Southern Forests Christopher Oswald, Southern Research Station, USDA Forest Service; Songlin Fei, Department of Forestry and Natural Resources, Purdue University Presenter: Christopher Oswald
10:20 AM	Scale, Time, Species Invasion, and Habitat Invasibility Qinfeng Guo, Southern Research Station, USDA Forest Service Presenter: Qinfeng Guo, Southern Research Station, USDA Forest Service
10:40 AM	The Importance of Couplings, Legacies, Scenarios, Tipping Points and Intensification Trends for Simulating Land Use Effects on Invasive Species Dynamics Bryan Pijanowski, Department of Forestry and Natural Resources, Purdue University; Amin Tayyebi, Department of Entomology, University of Wisconsin Presenter: Bryan Pijanowski

Invasives Symposium continued on next page ...

11:00 AM	Invasions of Forest Insects and Diseases and Their Impacts on Regional Forest Dynamics in North America <i>Andrew Liebhold, USDA Forest Service Northern Research Station, Morgantown, WV; Randall Morin, USDA Forest Service Northern Research Station, Newtown Square, PA</i> Presenter: Andrew Liebhold
11:20 AM	Using LiDAR to Model Invasive Species Across Regional Landscapes <i>Jinha Jung, Department of Biology, University of Illinois-Chicago; Bryan Pijanowski, Department of Forestry and Natural Resources, Purdue University</i> Presenter: Jinha Jung
11:40 AM	ForWarn Forest Disturbance Change Detection System Provides a Weekly Snapshot of U.S. Forest Conditions to Aid Forest Managers <i>William Hargrove, Eastern Forest Environmental Threat Assessment Center USDA Forest Service Southern Research Station; Joseph Spruce, Steve Norman, Forrest Hoffman</i> Presenter: William Hargrove

WEDNESDAY, APRIL 17 / 1:00 PM – 4:00 PM

Fire	Spatial Analysis	Riparian	Sustainable Management	Phenology 2	
CAPITOL VIEW TERRACE NORTH	CAPITOL A & B	CAPITOL D	CAPITOL VIEW TERRACE SOUTH	CAPITOL C	-

Wednesday, April 17	Oral Session: Fire Chair: Alan Taylor
1:00 PM	Multi-scale Drivers of Local Fire Activity in the Peruvian Amazon <i>Naomi Schwartz, Ruth DeFries, Victor Gutierrez-Velez, Miguel Pinedo-Vasquez, Maria Uriarte – Ecology, Evolution, and Environmental Biology, Columbia University</i> Presenter: Naomi B Schwartz, Ecology, Evolution, and Environmental Biology, Columbia University
1:20 PM	A Comparison of Fire Probability Models Built Using Inter-annual Variability and Multi-decadal Averages for the Boreal Forest of Canada <i>Marc Parisien, Canadian Forest Service</i> Presenter: Marc A. Parisien, Natural Resources Canada
1:40 PM	Fire History in Madrean Sky Islands <i>Alexis Arizpe, University of Arizona; Donald Falk, University of Arizona</i> Presenter: Alexis H Arizpe, University of Arizona
2:00 PM	Self-reinforcing Patterns of Forest Fire Severity in the Southern Cascades, USA <i>Alan Taylor, Department of Geography Penn State; Carl Skinner, USDA Forest Service; Catherine Airey, Department of Geography Penn State; Becky Estes, USDA Forest Service</i> Presenter: Alan H Taylor, Penn State University
2:20 PM	Landscape and Climatic Influences on Size and Severity of Large Fires on Western United States <i>Zhihua Liu, South Dakota State University; Michael Wimberly, South Dakota State University</i> Presenter: Zhihua Liu, Geographic Information Science Center of Excellence, South Dakota State University
2:40 PM	Characterizing Private Landowners' Fuel Reduction Activities for Coupled Systems Modeling in Activities in Oregon's (USA) Ponderosa Pine Ecoregion <i>Jeffrey Kline, USDA Forest Service; Paige Fischer, USDA Forest Service; Alan Ager, USDA Forest Service</i> Presenter: Jeffrey D Kline, USDA Forest Service

Wednesday, April 17	Oral Session: Spatial Analysis Chair: Brian Reichert
1:00 PM	On the use of ensemble models and model batteries in Landscape Ecology: An Alaskan Open Access Data Biodiversity Example Using Machine Learning and GIS <i>Falk Huettmann, University of Alaska-Fairbanks</i> Presenter: Falk Huettmann, University of Alaska-Fairbanks
1:20 PM	Multivariate Spatio-Temporal Delineation of Ecoclimatic Regions for Evaluating Sampling Network Sites in Turkey <i>Yasemin Ergüner Baytok, Istanbul Technical University; Jitendra Kumar, Oak Ridge National Laboratory; Serhan Akin, Istanbul Technical University; William Hargrove, USDA Forest Service; Forrest Hoffman, Oak Ridge National Laboratory</i> Presenter: Yasemin Ergüner Baytok, Istanbul Technical University, Eurasia Institute of Earth of Sciences
1:40 PM	Accounting for Temporal Dependency in Detections Can Improve the Fit of Animal-Landscape Occupancy Models <i>Tracy Pinney, Baylor University; Kevin Gutzwiller, Baylor University</i> Presenter: Tracy A Pinney, Baylor University
2:00 PM	Modeling Viticultural Landscapes: An Environmental Viticulture Information System <i>Elvis Takow, Texas A&M University; Edward Hellman, Texas A&M University; Andrew Birt, Texas A&M University; Maria Tchakerian, Texas A&M University; Robert Coulson, Texas A&M University</i> Presenter: Elvis A Takow, Texas A&M University
2:20 PM	Modeling the Evolution of In-stream Dissolved Organic Carbon Flux Processing from Agricultural Land Use <i>Ashley Blunden, Central Michigan University</i> Presenter: Ashley M Blunden, Central Michigan University
2:40 PM	Impact of the Modifiable Areal Unit Problem (MAUP) in Home Range Analysis: An Example from Woodland Caribou Habitat Use <i>Kristen Kilistoff, Laboratory for Landscape and Wildlife Ecology, Department of Geography, University of Victoria; Dennis Jelinski, Laboratory for Landscape and Wildlife Ecology, Department of Geography, University of Victoria</i> Presenter: Kristen D Kilistoff, Laboratory for Landscape and Wildlife Ecology, Department of Geography, University of Victoria
3:00 PM	Refreshment Break
3:20 PM	Network Modularity Reveals Critical Scales for Connectivity in Ecology, Evolution, and Conservation <i>Brian Reichert, Department of Wildlife Ecology and Conservation, University of Florida; Robert Fletcher, Jr., Department of Wildlife Ecology and Conservation, University of Florida; Andre Revell, Department of Wildlife Ecology and Conservation, University of Florida; Jeremy Dixon, Crocodile Lake National Wildlife Refuge; James Austin, Department of Wildlife Ecology and Conservation, University of Florida</i> Presenter: Brian E Reichert, University of Florida
3:40 PM	Spatially Explicit Simulation of Land Development Coupled with Smart Growth and Land Conservation <i>Wenpeng Feng, Wenwu Tang, Ross Meentemeyer – UNC Charlotte</i> Presenter: Wenpeng Feng, University of North Carolina at Charlotte

Wednesday, April 17	Oral Session: Riparian Chair: John Kupfer
1:00 PM	Assessing and Visualizing Floodplain Connectivity Through the use of Network and Circuit Theory <i>John Kupfer, University of South Carolina; Kimberly Meitzen, Duke University; Peng Gao, University of South Carolina</i> Presenter: John A Kupfer, University of South Carolina
1:20 PM	Using GIS to Identify Potential Sites for Freshwater Fish Preservation Along Gradient of Precipitation/Flow Rate <i>Pey-Yi Lee, Department of Life Sciences, National Taiwan Normal University; Jian-Pin Suen, Department of Hydraulic and Ocean Engineering, National Cheng Kung University</i> Presenter: Pey-Yi Lee, Department of Life Sciences, National Taiwan Normal University
1:40 PM	Riparian Land Use and Bio-hydro-geomorphic Feedbacks Along a Large Floodplain-River System in the Great Plains from 1820 to 2008 <i>Jason Julian, University of Oklahoma</i> Presenter: Jason P Julian, University of Oklahoma
2:00 PM	Landscape Controls on Spatial Heterogeneity of Water Temperature in Rivers Across the Pacific Northwest, USA <i>Aimee Fullerton, NOAA Fisheries & University of Washington; Christian Torgersen, US Geological Survey, Forest and Rangeland Ecosystem Science Center; Joshua Lawler, University of Washington, School of Environmental and Forest Sciences; Russell Faux, Watershed Sciences; E Steel, USDA Forest Service, Pacific Northwest Research Station</i> Presenter: Aimee H Fullerton, NOAA Fisheries & University of Washington
2:20 PM	Riparian and Channel Geomorphological Predictors of Community Composition of Stream Salamanders in the Blue Ridge and Piedmont Ecoregions <i>Thilina Surasinghe, Clemson University, SC; Robert Baldwin, Clemson University, SC; Mark Scott, South Carolina Department of Natural Resources</i> Presenter: Thilina D Surasinghe, Clemson University
2:40 PM	Hydrologic Alterations, Environmental Flows, and Conservation Priorities in Four Southeastern U.S. Rivers <i>Kimberly Meitzen, The Nature Conservancy, North Carolina</i> Presenter: Kimberly M Meitzen, The Nature Conservancy, North Carolina Chapter



Wednesday, April 17	Oral Session: Sustainable Management Chair: Esther Parish
1:00 PM	DPSIR Approach in Assessment of Management Strategies of St. Martin's Island, Bangladesh <i>Byomkesh Talukder, Wilfrid Laurier University; Nakagoshi Nakagoshi, Hiroshima University; Md. Saifuzzaman, Jahangirnagar University</i> Presenter: Byomkesh Talukder, Wilfrid Laurier University
1:20 PM	Comparing Scales of Environmental Effects from Gasoline and Ethanol Extraction Across Different Ecosystems <i>Esther Parish, Kevin Kline, Virginia Dale, Rebecca Efrogmson, Allen McBride – ORNL</i> Presenter: Esther S Parish, Oak Ridge National Laboratory (ORNL)
1:40 PM	Sustainable Vertical Farming as a Solution <i>Mahogany Bullock, University of Tennessee at Martin</i> Presenter: Mahogany J Bullock, University of Tennessee at Martin
2:00 PM	Status of Landscapes and Ecology at the Three Poles (Arctic, Antarctic and Hindu Kush-Himalaya): Towards Strategic Conservation Planning Based on a Global Review and Assessment <i>Falk Hueftmann, University of Alaska Fairbanks</i> Presenter: Falk Hueftmann, University of Alaska-Fairbanks
2:20 PM	Reverse-engineering Wildland-urban Interface at a Municipal Scale <i>Ellen Whitman, School For Resource and Environmental Studies, Dalhousie University; Eric Rapaport, School of Planning, Dalhousie University; Kate Sherren, School for Resource and Environmental Studies, Dalhousie University</i> Presenter: Ellen M Whitman, Dalhousie University
2:40 PM	Determining Priority Amphibian and Reptile Conservation Areas (PARCAs) Across the Southeastern United States <i>Stephen Spear, The Orianne Society; Joseph Apodaca, Warren Wilson College; Christopher Jenkins, The Orianne Society</i> Presenter: Stephen Spear, The Orianne Society
3:00 PM	Break
3:20 PM	Shale Gas, Wind and Water Quality: Assessing the Cumulative Impacts of Energy Development on Drinking Water <i>Jeffrey S. Evans, The Nature Conservancy, University of Wyoming, Department of Zoology and Physiology; Joseph M. Kiesecker, The Nature Conservancy</i> Presenter: Jeffrey Evans, The Nature Conservancy
3:40 PM	Developing Landscape Level Indicators for Predicting Watershed Condition <i>Anne Kuhn, Nathan Smucker, Jim Lake, Jonathan Serbst – U.S. Environmental Protection Agency; Michael Charpentier, Raytheon</i> Presenter: Anne Kuhn, US EPA

Wednesday, April 17	Symposium: Phenology 2 Convener: Forest Hoffman
1:00 PM	Global Evaluation of CMIP5 Earth System Models in Simulating Leaf Area Index Using Remote Sensing Products <i>Jiafu Mao, Climate Change Science Institute/Environmental Sciences Division, Oak Ridge National Laboratory; Forrest Hoffman, Climate Change Science Institute/Computer Science and Mathematics Division, Oak Ridge National Laboratory; Jitendra Kumar, Climate Change Science Institute/Environmental Sciences Division, Oak Ridge National Laboratory; Xiaoying Shi, Climate Change Science Institute/Environmental Sciences Division, Oak Ridge National Laboratory; Peter Thornton, Climate Change Science Institute/Environmental Sciences Division, Oak Ridge National Laboratory</i> Presenter: Jiafu Mao
1:20 PM	Recent Efforts to Improve the Near Real Time Forest Disturbance Monitoring Capabilities of the ForWarn System <i>Joseph Spruce, Computer Sciences Corporation; William Hargrove, USDA Forest Service; Gerald Gasser, Lockheed Martin Civil Programs</i> Presenter: Joseph P Spruce, Computer Sciences Corporation
1:40 PM	Phenological Implications in Detecting Forest Disturbances in Near Real-Time <i>Robert Chastain, RedCastle Resources/USFS Remote Sensing Applications Center; Jim Ellenwood, USFS Forest Health Technology Enterprise Team; Frank Sapio, USFS Forest Health Technology Enterprise Team, Fort Collins, CO; Mark Finco, RedCastle Resources/USFS Remote Sensing Applications Center; Haans Fisk, USFS Remote Sensing Applications Center</i> Presenter: Robert A Chastain, USFS Remote Sensing Applications Center
2:00 PM	Landscape Models of Non-native Plant Phenology and Invasion to Support Conservation on Military and Adjacent Lands in the Sonoran Desert <i>Brett Dickson, Conservation Science Partners; Aayrn Olsson, Northern Arizona University; Ophelia Wang, Northern Arizona University; Luke Zachmann, Conservation Science Partners; Jill Rundall, Northern Arizona University</i> Presenter: Steven Sesnie, U.S. Fish & Wildlife Service
2:20 PM	Assessing Disturbance and Risk in Agricultural and Grassland Landscapes Using MODIS Phenology Products <i>Kenton Ross, Jamie Favors, Lauren Childs-Gleason, Shelby Barrett – NASA Langley Research Center; Joseph Spruce, Science Advisor, NASA DEVELOP Program, Stennis Space Center</i> Presenter: Joseph Spruce, NASA DEVELOP Program
2:40 PM	Predicting Long-term Wildfire Effects from Multi-seasonal Satellite Data <i>Steven Norman, William Hargrove – USDA Forest Service Eastern Threat; Joseph Spruce, Stennis Space Center; William Christie, USDA Forest Service Eastern Threat Center</i> Presenter: Steven P Norman, USDA Forest Service Eastern Threat Center
3:00 PM	Refreshment Break
3:20 PM	Phenology Variation Across an Elevational Gradient in Central Arizona <i>Jessica Walker, Department of Geography and Environmental Sustainability, The University of Oklahoma; Kirsten de Beurs, Department of Geography and Environmental Sustainability, The University of Oklahoma; Randolph Wynne, Department of Forest Resources and Environmental Conservation, Virginia Polytechnic Institute and State University</i> Presenter: Jessica J Walker, The University of Oklahoma
3:40 PM	Urban Influences on Land Surface Phenologies in the U.S. Great Plains <i>Jessica Walker, Department of Geography and Environmental Sustainability, The University of Oklahoma; Kirsten de Beurs, Department of Geography and Environmental Sustainability, The University of Oklahoma; Geoffrey Henebry, Geographic Information Science Center of Excellence, South Dakota State University</i> Presenter: Jessica J Walker, The University of Oklahoma
4:00 PM	Studying Forest Phenology at the Landscape Scale in the Southern Appalachians <i>Thomas Prebyl, University of Georgia; Jeffrey Hepinstall-Cymerman, University of Georgia</i> Presenter: Thomas J Prebyl, University of Georgia

POSTER PRESENTATIONS

POSTER SOCIAL Monday, April 15th, 5:00 – 7:00 p.m.

*=presenter

Posters are listed in alphabetical order by last name of the primary author.

1	Analysis and Characterization of Spatiotemporal Trends and Variability in Evapotranspiration and Vegetation Dynamics Across the Nile Basin in the MODIS Era <i>Henok Alemu*</i> , Geographic Information Sciences Center of Excellence, South Dakota State University; <i>Gabriel B Senay</i> , U.S. Geological Survey, Earth Resources Observation and Science (EROS) Center; <i>Valeriy Kovalskyk</i> , Geographic Information Sciences Center of Excellence, South Dakota State University; <i>Armel T Kaptue</i> , Geographic Information Sciences Center of Excellence, South Dakota State University
2	Land Surface Phenologies and Seasonalities Using Earth-light: A Comparison Between Tropical and Temperate Croplands <i>Woubet G Alemu*</i> , <i>Geoffrey M Henebry</i> – South Dakota State University
3	Do Conservation Assessments Miss the Forest for the Trees? Representation of Site vs. Landscape Features in Protected Area Systems <i>Margaret E Andrew*</i> , Murdoch University; <i>Michael A Wulder</i> , Canadian Forest Service; <i>Jeffrey A Cardille</i> , McGill University
4	Development of a Digital Photography Protocol for the Rapid Assessment of Plant Communities <i>Laurianne L Bonin*</i> , UQTR; <i>Guillaume G Rheault</i> , UQTR; <i>Raphael R Proulx</i> , UQTR
5	The Sensitivity of Genetic Connectivity Measures to Unsampled and Under-sampled Sites <i>Jeff Bowman*</i> , Ontario Ministry of Natural Resources; <i>Colin J Garroway</i> , University of Oxford; <i>Paul J Wilson</i> , Trent University
6	Modeling the Spread and Impacts of Emerging Infectious Disease as a Coupled Human and Natural System <i>Anya B Byers*</i> , <i>Joseph DiRenzo</i> , <i>Whalen W Dillon</i> , <i>Sarah E Haas</i> , <i>Ross K Meentemeyer</i> – University of North Carolina at Charlotte
7	Sustainable Landscapes: An Alternative Future for Mine-Scarred Lands <i>Angela S Campbell*</i> , <i>Peter Butler</i> , <i>Jing Chu</i> , <i>Ayaka Hosogaki</i> – West Virginia University
8	Effects of Different Land Management Regimes on Wildlife Habitat: The Case of Tigers in Nepal <i>Neil H Carter*</i> , Michigan State University; <i>Andrés Viña</i> , Michigan State University; <i>Henry Campa</i> , Michigan State University; <i>Jhamak Karki</i> , Nepal Department of National Parks and Wildlife Conservation
9	Bridging the Planning-Implementation Gap: Do Conservation Plans influence the Pattern of Subsequent Land Acquisitions? <i>Sarah Carter*</i> , <i>Anna M Pidgeon</i> , <i>Volker C Radeloff</i> – University of Wisconsin, Madison
10	An Approach to Identify the Edge Effect of Patch a Heterogeneous Landscape <i>Liding Chen*</i> , Research Center for Eco-Environmental Science, CAS
11	Danger of Modeling with County Scale Species Data <i>Steven D. Collins*</i> , Texas Tech University, Department of Biological Sciences
12	The Hydrological Dynamics of Temporary Wetlands in the Southern Great Plains as a Function of Surrounding Land Use <i>Steven D. Collins*</i> , <i>Lucas J. Heintzman</i> , <i>Nancy E. McIntyre</i> – Texas Tech University
13	Comparing Statistical Approaches for Landscape Genetic Analyses in Two Amphibian Species <i>Stephanie S Coster*</i> , <i>Adrienne I Kovach</i> , <i>Kimberly J Babbitt</i> , <i>Mark Ducey</i> – University of New Hampshire
14	West Nile Virus Risk Assessment in College Station, Texas, USA <i>Rachel Curtis*</i> , Texas A&M Univeristy; <i>Miranda R Bertram</i> , Department of Veterinary Integrative Bioscience, College of Veterinary Medicine, Texas A&M University; <i>Maria D Tchakerian</i> , Knowledge Engineering Laboratory, Department of Entomology, College of Agricultural and Life Sciences, Texas A&M University; <i>Mark M Johnsen</i> , Brazos County Health Department; <i>Robert N Coulson</i> , Knowledge Engineering Laboratory, Department of Entomology, College of Agricultural and Life Sciences, Texas A&M University
15	Spatial Modeling of Biologically Relevant Subsurface Hydrologic Connectivity Between Isolated Wetlands and Jurisdictional Surface Waters in the Dougherty Plain, Georgia, USA <i>James B Deemy*</i> , University of Georgia; <i>Jeffrey Hepinstall-Cymerman</i> , University of Georgia; <i>L. Katherine Kirkman</i> , <i>Joseph W. Jones Ecological Research Center</i> ; <i>Nathan P Nibbelink</i> , University of Georgia; <i>Todd C Rasmussen</i> , University of Georgia

16	Interacting Disturbances and Landscape Change in a Novel Pathosystem <i>Whalen W Dillon*</i> , University of North Carolina at Charlotte; <i>Richard C Cobb</i> , University of California - Davis; <i>David M Rizzo</i> , University of California - Davis; <i>Ross K Meentemeyer</i> , University of North Carolina at Charlotte
17	South-East Asian Region (SEAR): Sea Basin Landscape Mapping for Paleoclimatology & Recent Climate Change Impacts <i>Nomana Intekhap Hadi*</i> , <i>Dr. Friedemann Freund</i> – Earth Science Division, NASA Ames Research Center (SETI Institute Affiliation)
18	Development of a Statewide Vulnerability (Urban Growth) Model for Virginia <i>Kirsten R Hazler*</i> , Virginia Natural Heritage Program
19	Comparing Land Cover and Population Change Across Multiple Administrative and Biophysical Extents from 1990 to 2010 in the Southern Appalachians <i>Jeffrey Hepinstall-Cymerman*</i> , University of Georgia; <i>Natalie Stone</i> , University of Georgia
20	The Threat of Tree Decline to Recruitment Dynamics in Mediterranean Forests: An Experimental Approach to Evaluate the Role of Neighbors on Seedling Demography <i>Beatriz Ibanez*</i> , IRNASE-CSIC; <i>Lorena Gomez-Aparicio</i> , IRNASE-CSIC; <i>Peter Stoll</i> , University of Basel; <i>José Manuel Avila Castuera</i> , IRNASE-CSIC; <i>Dr. Teodoro Marañón Arana</i> , IRNASE-CSIC
21	Climate Change Vulnerability Assessment in the Appalachian Mountains: Bioclimatic Envelope Modeling of Major Ecosystem Types <i>Patrick A Jantz*</i> , Woods Hole Research Center; <i>Scott J Goetz</i> , Woods Hole Research Center; <i>Scott G Zolkos</i> , Woods Hole Research Center; <i>Tina A Cormier</i> , Woods Hole Research Center
22	Translocation as a Mountain Caribou Management Tool: Population Plasticity and the Landscape <i>Dennis E Jelinski*</i> , Laboratory for Landscape and Wildlife Ecology, University of Victoria; <i>Heather A Leech</i> , Laboratory for Landscape and Wildlife Ecology, University of Victoria; <i>Gerald W Kuzyk</i> , Ministry of Forests, Lands and Natural Resource Operations; <i>Leo DeGroot</i> , Ministry of Forests, Lands and Natural Resource Operations; <i>Kristen D Kilistoff</i> , Laboratory for Landscape and Wildlife Ecology, University of Victoria
23	Community Forest of Nepal: How it Maintains Ecosystem Services and Copes with Global Warming? <i>Bidur Khadka*</i> , Masters Student UNU-IAS
24	Bat Roost Selection in a Medium-sized City <i>Han Li*</i> , Baylor University; <i>Robin S Vander Pol</i> , Baylor University; <i>Kenneth T Wilkins</i> , Baylor University
25	Modeling Endogenous and Exogenous Factors of Ant Nest Growth and Distribution in a Coffee Agroecosystem <i>Kevin Li*</i> , University of Michigan School of Natural Resources and the Environment
26	Hierarchical Interactions of Driving Forces in the Perspective of Evolutionary Dynamics of Landscape Change <i>Daniela Barbosa da Silva Lins*</i> , NEPAM/UNICAMP; <i>Jurandir Zullo Júnior</i> , NEPAM/UNICAMP
27	A Process-based Risk Propagation Model :Case Study in the Ku-ye River Basin in North of China <i>Xiaoqian Liu*</i> , Peking University; <i>James F Reynolds</i> , Duke University; <i>Yanglin Wang</i> , Peking University
28	Riparian Buffer Siting Decision Support Tool for an Urban Watershed <i>Chelsea J Martin-Mikle*</i> , <i>Nick A Wilgruber</i> , <i>Kirsten M de Beurs</i> , <i>Jason P Julian</i> , Department of Geography & Environmental Sustainability, University of Oklahoma
29	Illustrated Key for Fragmentation Analysis of the Araucaria Forest in PiraÃ- da Serra, ParanÃ; State, South Brazil <i>Rosemeri S. Moro*</i> , DEBIO/UEPG; <i>Valquiria N. Chochel</i> , DEBIO/DEZOO; <i>Lia O. Ritter</i> , ESALQ/USP
30	Patterns of Natural Fragmented Landscape in Campos Gerais Region, South Brazil <i>Rosemeri S. Moro*</i> , DEBIO/UEPG; <i>Valquiria M. Nanuncio</i> , DEBIO/UEPG; <i>Karine Dalazoana</i> , SEED PR
31	Mapping Hemlock Decline in the Southern Appalachians Using High and Moderate Resolution Imagery <i>Steven P Norman*</i> , USDA Forest Service Eastern Threat Center; <i>William W Hargrove</i> , USDA Forest Service Eastern Threat; <i>Sara Thompson</i> , University of North Carolina, Asheville; <i>William M Christie</i> , USDA Forest Service Eastern Threat; <i>Joseph P Spruce</i> , Stennis Space Center
32	Landscape Fragility on a Gender perspective. Campus ConcepciÃ³n, Universidad de ConcepciÃ³n <i>Carolina G Ojeda*</i> , Universidad de ValparaÃ-so
33	Mounds, Microclimates, and Maize: Understanding the Influence of Inland Lakes on Agriculture in Pre-contact Indigenous Societies using Remote Sensing Image Data <i>Michael W Palace*</i> , University of New Hampshire, Earth Systems Research Center; <i>Meghan Howey</i> , Department of Anthropology, Univeristy of New Hampshire; <i>Crystal H McMichael</i> , University of New Hampshire, Earth Systems Research Center, Durham, NH; <i>Bobby H Braswell</i> , Applied Geosolutions; <i>Stephen C Hagen</i> , Applied Geosolutions
34	Linked Micromaps: Statistical Summaries in a Spatial Context Using the Micromap R Package <i>Quinn Payton*</i> , U.S. EPA/ORD/NHEERL; <i>Marc Weber</i> , U.S. EPA/ORD/NHEERL; <i>Michael G McManus</i> , U.S. EPA/ORD/NCEA; <i>Thomas M Kincaid</i> , U.S. EPA/ORD/NHEERL; <i>Anthony R Olsen</i> , U.S. EPA/ORD/NHEERL

35	Black Carbon Additions to the Soil and the Role of Multiple Disturbances 9 Years After a Severe Fire <i>Rebecca E Poore*</i> , University of Colorado, Ecology and Evolutionary Biology & Cooperative Institute for Research in Environmental Sciences; <i>Brian Buma</i> , University of Colorado, Ecology and Evolutionary Biology & Cooperative Institute for Research in Environmental Sciences; <i>Carol A Wessman</i> , University of Colorado, Ecology and Evolutionary Biology & Cooperative Institute for Research in Environmental Sciences
36	Plant Species Diversity Prolong the Growth Period of Riparian Buffers <i>Guillaume G Rheault*</i> , UQTR; <i>Laurianne L Bonin</i> , UQTR; <i>Raphael R Proulx</i>
37	Dynamic Connectivity of Temporary Wetlands <i>Luis J. Ruiz*</i> , <i>Lucas J. Heintzman</i> , <i>Steven D. Collins</i> , <i>Scott M. Starr</i> , <i>Nancy E. McIntyre</i> – Texas Tech University
38	Least-Cost Path Analysis of the Kudzu Vine <i>Anthony C. Ryan*</i> , The University of Oklahoma Department of Geography & Environmental Sustainability
39	Conserving Vital Asian Elephant Habitat in Sri Lanka <i>Christie L Sampson*</i> , Clemson University
40	Landscape-scale Habitat Characterization for the Golden-cheeked Warbler and Black-capped Vireo Using LiDAR and NAIP-CIR Imagery at Balcones Canyonlands National Wildlife Refuge, Texas <i>Steven E Sesnie*</i> , <i>James E Mueller</i> , <i>Scott M Rowin</i> , <i>David T Morgan</i> – U.S. Fish & Wildlife Service
41	How Does City Size Affect the Relationship Between Bird Species Richness and Urbanization? <i>Peter J Sherman*</i> , <i>Sara A Gagne</i> UNC-Charlotte Geography and Earth Sciences
42	Patterns of Vegetation in Southwest US <i>Varada S Shevade*</i> , University of Maryland; <i>Stephen Prince</i> , University of Maryland
43	Allelopathic Effects of <i>Alliaria Petiolata</i> on Rhizobia and its Implications for Native Legume Performance <i>Tina Van Doornick*</i> , Michigan State University; <i>Maria C Portales Reyes</i> , The University of Texas at Austin; <i>Elizabeth H Schultheis</i> , Michigan State University; <i>Tomomi Suwa</i> , Michigan State University
44	The Search for Solitude: Privacy as a Driver in Exurban Housing Location Selection <i>Jelena Vukomanovic*</i> , University of Arizona; <i>Barron J Orr</i> , University of Arizona
45	Cougar (<i>Puma Concolor</i>) Gene Flow in a Heterogeneous Landscape <i>Matthew J Warren*</i> , Western Washington University; <i>David O Wallin</i> , Western Washington University; <i>Richard A Beausoleil</i> , Washington Department of Fish and Wildlife
46	Functional Connectivity of Multi-host Parasites in an Island Landscape: Spatial Ecology of Lyme Disease <i>Alexander G Watts*</i> , University of Toronto; <i>Marie-Josée Fortin</i> , University of Toronto; <i>Patrick A Leighton</i> , Université de Montréal; <i>Claire Jardine</i> , University of Guelph; <i>Lisa Werden</i> , St. Lawrence Islands National Park
47	Changing Wildfire Risk in the Acadian Forest Region Under Future Climate Change <i>Ellen M Whitman*</i> , School For Resource and Environmental Studies, Dalhousie University; <i>Eric Rapaport</i> , School of Planning, Dalhousie University; <i>Kate Sherren</i> , School for Resource and Environmental Studies, Dalhousie University
48	The Evolving Drainage Network of Urban Watersheds: A case Study of the Lake Thunderbird Watershed in Central Oklahoma from 1874 to 2010 <i>Nicholas A Wilgruber*</i> , University of Oklahoma; <i>Jason P Julian</i> , University of Oklahoma; <i>Kirsten M de Beurs</i> , University of Oklahoma; <i>Chelsea J Martin</i> , University of Oklahoma
49	Evaluation of Ecosystem Function of Urban Streams and Riparian Systems in Austin, Texas, USA <i>Leilani F Williams*</i> , Texas State University; <i>Yixin Zhang</i> , Texas State University; <i>Paula Williamson</i> , Texas State University
50	Strategic Habitat Units for Aquatic Species of Conservation Concern in Alabama <i>Elizabeth A Wynn*</i> , Geological Survey of Alabama (GSA); <i>Pat O'Neil</i> , GSA; <i>Jeff Powell</i> , U.S. Fish & Wildlife Service; <i>Paul Johnson</i> , Alabama Department of Conservation; <i>Jennifer Pritchett</i> , USFWS

AWARDS

US-IALE Foreign Scholar Travel Award Program

Through the Foreign Scholar Travel Award Program, US-IALE annually provides travel funds to two landscape ecologists from foreign countries to present their research at the annual meeting. The FSTA program is not only an outreach effort, but also a mechanism that fosters international exchange about advances in landscape ecology and helps build collaborative relationships.

Special thanks to IALE International for providing support for three additional Foreign Scholar Travel Awards this year!

A special thanks to the companies who provided publications or software for the Foreign Scholar Travel Award auction:

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Funds raised during our silent book and software auction at each annual meeting support these travel grants. Don't forget to bid early and often!

US-IALE Foreign Scholar Travel Award Recipients

- * **Wanmo Kang, Republic of Korea**, *Department of Environmental Planning, Graduate School of Environmental Studies, Seoul National University*
Presentation: Modeling Impacts of Climate Change on Distribution and Gene Flow of Threatened Tree *Kalopanax Septemlobus* in South Korea / **Monday, Biogeography, 1:20 PM**
- * **Rodrigo Anzolin Begotti, Brazil**, - *Laboratório de Hidrologia Florestal, Escola Superior de Agricultura Luiz de Queiroz, Universidade de São Paulo*
Presentation: Revisiting a Known Landscape: Deforestation Mediated by Road Network Growth, Social and Environmental Factors in Southwestern Brazilian Amazon During 1975-2011 / **Monday, Landscape Change 2, 4:00 PM**
- * **Abu Rushed Jamil Mahmood, Bangladesh**, *Durham University*
Presentation: High Spatial Resolution Imagery to Map Changes in Vegetation Dynamics: The Case for the World Largest Mangrove / **Tuesday, Remote Sensing, 11:00 AM**
- * **Yasemin Ergüner Baytok, Turkey**, *Istanbul Technical University, Eurasia Institute of Earth of Sciences*
Presentation: Multivariate Spatio-Temporal Delineation of Ecoclimatic Regions for Evaluating Sampling Network Sites in Turkey / **Wednesday, Spatial Analysis, 1:20 PM**
- * **Daniela Barbosa da Silva Lins, Brazil**, *NEPAM/UNICAMP*
Poster: Hierarchical Interactions of Driving Forces in the Perspective of Evolutionary Dynamics of Landscape Change

US-IALE Student Travel Awards

Up to ten travel awards were made available to students to attend this year's US-IALE meeting with funding generously provided by US-IALE. Ten students were selected by the US-IALE Awards Committee to receive these awards, which include up to \$500 for travel to the conference.

2013 Student Travel Awardees:

Anya Byers, *University of North Carolina-Charlotte*
Matthew Duveneck, *Portland State University*
Peng Gao, *University of South Carolina*
Micah Hahn, *University of Wisconsin-Madison*
Han Li, *Baylor University*

David Lowenstein, *University of Illinois at Chicago*
Christopher Nadeau, *Cornell University*
Kellen Nelson, *University of Wyoming*
James Tracy, *Texas A&M University*
Victoria Zero, *University of Wyoming*

AWARDS

NASA-MSU Professional Enhancement Awards Program

The NASA-MSU Professional Enhancement Awards are made possible by the support from the National Aeronautics and Space Administration (NASA) and Michigan State University (MSU). This is the 16th consecutive year of the program. The selected students have opportunities to meet with some leading landscape ecologists at a special dinner gathering, to learn the latest developments in landscape ecology, and to build professional networks with other conference attendees. Each year, approximately 20 awards (up to \$700 each) are given to the selected students to cover expenses associated with attending the annual conference of US-IALE. Applications are judged according to the merit of the applicants' abstracts, professional background, career goals, and financial needs. There are 21 awardees this year. The 2013 NASA-MSU Awards Committee consists of Jianguo (Jack) Liu (Chair), Anita Morzillo (Co-Chair), Garik Gutman (NASA), Vickie St. John (MSU), and Shuxin Li (MSU).

NASA-MSU Awardees (Class of 2013)

Name	Institution
Pradeep Adhikari	University of Oklahoma
Ryan Anderson	Butler University
Adi Barocas	University of Wyoming
J. Amy Belaire	University of Illinois at Chicago
Helen Bothwell	Northern Arizona University
Brian Buma	University of Colorado
Serena Caplins	Virginia Commonwealth University
Neil Carter	Michigan State University
Sarah Carter	University of Wisconsin - Madison
Brenna Forester	Duke University
Amy Frazier	University at Buffalo
Erin Koen	Trent University
Myung-Bok Lee	University of Georgia
Kevin Li	University of Michigan
Xiaoqian Liu	Peking University and Duke University
Julie Ripplinger	Arizona State University
Christie Sampson	Clemson University
Naomi Schwartz	Columbia University
Douglas Shoemaker	Portland State University
Thilina Surasinghe	Clemson University
Jelena Vukomanovic	University of Arizona



With funding from NASA and Michigan State University (MSU), the program has supported more than 330 students from approximately 130 institutions worldwide since 1998 to present their research and interact with leading scientists and other attendees at meetings of US-IALE and IALE. It has also sponsored many symposia and workshops.



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ABOUT US-IALE

The purpose of US-IALE is to:

- foster landscape ecology in the United States
- provide a link among practitioners in landscape ecology within the United States as well as the international community
- promote interdisciplinary research and communication among scientists, planners, and other professionals concerned with landscape ecology

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- Networking capability via listserve and member website, which provide efficient and powerful avenues for scholars from all over the world to interact and collaborate
- Free posting of job announcements on US-IALE website, a great way to advertize broadly regarding open positions to others sharing an interest in landscape ecology
- Resources for teaching and research in landscape ecology, compiled by leaders in the field

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