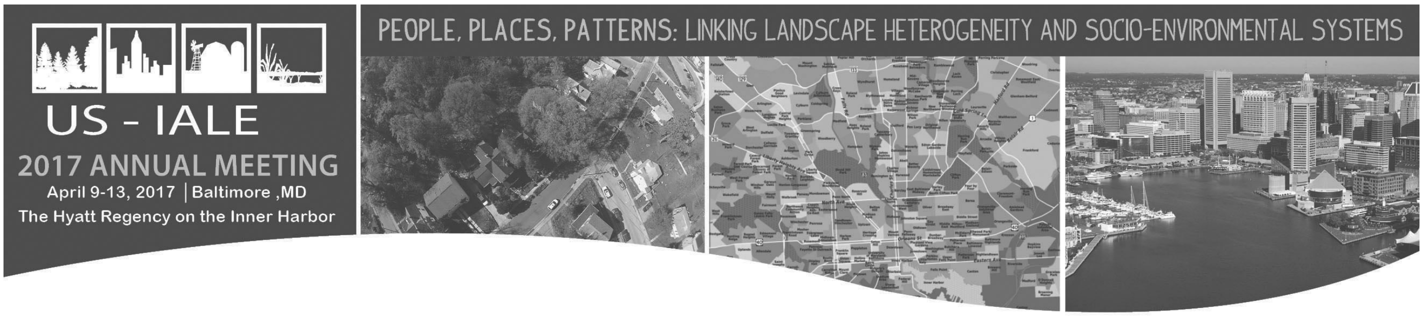

Table of Contents

WELCOME

On behalf of the organizing committee, we would like to welcome you to Baltimore, Maryland and the 2017 meeting of the U.S. Regional Association of the International Association for Landscape Ecology (US-IALE). We're excited to have you here!

From its colonial origins and its prominent role in the struggle for independence to its more recent urban renewal and culture and social change, Baltimore is a national landmark. As a modern metropolis and port city, Baltimore is known for its Inner Harbor attractions, world-class art museums, characteristic and distinct neighborhoods, horse races, groundbreaking planning and design, and gritty blue-collar sports teams; but also for its history of segregation, urban blight, and unflattering dramatic portrayal in HBO's *The Wire* or NPR's *Serial* podcast. Baltimore offers an opportunity to learn about the social context of long-term landscape design under land use change while exploring NSF's longest-running urban Long-Term Ecological Research project, pioneering urban greenspace design, and regional zoning under Maryland's efforts at 'Smart Growth'. These days, the city contains a heterogeneous mix of a storied and sometimes troubled history, environmental challenges, and modern efforts at renewal and continued growth.

In the broader context, Baltimore is a nexus for the challenges and opportunities in modern-day society as seen through the lens of the Chesapeake Bay watershed restoration efforts to protect water quality and restore ecosystem function. The theme of this year's meeting: People, Places, Patterns: Linking Landscape Heterogeneity and Socio-Environmental Systems, makes explicit what has long been a central theme in Landscape Ecology—that people play an inherently critical role in responding to and shaping landscape pattern. It seems altogether appropriate that we should engage these questions in the 'City of Neighborhoods'.

We hope you will join us in engaging in this opportunity to share ideas, to learn from other perspectives, and deepen understanding as we enhance landscape management. We also hope you will take advantage of Baltimore's many different attractions from Camden Yards, to Cross Street Market, Fell's Point, the National Aquarium, or Fort McHenry.

Welcome to Bawlmer, Hon!
Matthew Baker (Local Host) & Todd Lookingbill (Program Chair)

ACKNOWLEDGMENTS

We would like to thank the many people who generously contributed time and effort to make our meeting a success. Many current officers were involved including: Ross Meentemeyer, Jeffrey Hepinstall-Cymerman, Jessica Price, Jennifer Fraterrigo, Anita Morzillo, Sam Cushman, Rose Graves, Brian Pickard, Yolanda Wiersma, Brian Buma, and Kathy Vigness-Raposa. We acknowledge the help of past-meeting organizers who have contributed advice, helpful templates, and to-do lists. We also appreciate the efforts of the US-IALE webmaster Matt Viehdorfer, for managing the meeting's online presence.

We thank our Plenary and Banquet Speakers for their engaging and thought-provoking presentations: Steward Pickett, Morgan Grove, Ann Swanson, Bill Dennison, and Hugh Possingham.

Gratitude is also due to our tremendous Field Trip Organizers for coordinating scientific excursions and helping attendees experience and appreciate the hidden gems of the Inner Harbor, Greater Baltimore, and the region: Donald Weller and SERC Scientists, Steward Pickett, Katie Lautar, Ian Yessalonis, Ed Orser, Peter May, Russell Hill, and the educational staff of the National Aquarium.

We are indebted to the Symposium Organizers who developed thematic sessions covering a broad range of topics, the Workshop Instructors for providing enlightening educational opportunities, and the Moderators for help leading and managing individual sessions. We also are grateful for the many Volunteers who helped with the daily management of the meeting.

Special recognition is due to our Sponsors and Donors for their generous contributions to the success of the meeting. We also appreciate the helpful service provided by Morgan Simonet, Event Planning Manager at the Hyatt Regency. Finally, we are especially grateful for the truly extraordinary efforts of Meg Boera and Emma Voci at Delaney Meeting & Event Management, without whom this meeting could never have happened.

Thank you all so much for your help in bringing US-IALE to Baltimore.

The 2017 Program Committee includes Todd Lookingbill, Matthew Baker, Andrew Elmore, Sarah Goslee, Matthew Fitzpatrick, and Matthew Nicholson.

GENERAL CONFERENCE INFORMATION

REGISTRATION DESK

The conference registration desk is located in the **Constellation Ballroom F Foyer**, on the Second Floor. Stop here to pick up conference materials, check out the Message/Job Board, and get information or assistance with conference functions.

Hours of Operation:

Sunday, April 9	12:00 PM - 6:30 PM
Monday, April 10	7:00 AM - 5:00 PM
Tuesday, April 11	7:00 AM - 5:00 PM
Wednesday, April 12	7:00 AM - 5:00 PM

MEETING ROOM LOCATIONS

Meetings and events will take place in the **Hyatt Regency Baltimore**. Refer to the Conference Agenda and Technical Session Grid to see where your meetings are being held, and plan your time accordingly. For a reference of where specific meeting rooms are located within the hotel, please see the hotel layout on the inside cover of this program.

INTERNET SERVICE

Complimentary Wi-Fi access is available throughout the meeting space.

SPEAKER CHECK-IN

All presenters must load their presentation onto the laptop in the specific session room of their presentation. Please arrive at least 15 minutes prior to your SESSION (not your presentation). Label your presentation file with name, session name, day and presentation time (For ex. TLookingbill_Policy_Wed _140PM) This will help your session chair identify and open your talk, and assure smooth transitions between presentations. Please seek out your session chair or moderator before your session to introduce yourself. If you're looking for a quiet space to practice/review your presentation, the **Camden Room** (Third Floor) has been reserved as a Speaker Ready Room and will be available throughout the meeting.

STUDENT RIBBON

Students will receive an orange-colored **"STUDENT"** ribbon to attach to their name tag. All meeting registrants are encouraged to engage students in conversations and professional activities to facilitate networking.

POSTER AUTHORS

Poster Boards will be provided, and set in the **Harborview Room**. Poster boards will be numbered sequentially. Please put up your poster on the board with your assigned poster number. If you don't know your number, check the list of authors and poster numbers in this program on pages 38-42, or ask at the Registration Desk. Posters may be set up beginning on Monday morning, and must be removed by Wednesday at noon.

TECHNICAL SCHEDULE

The full schedule of Technical Sessions and Symposia is listed on pages 16-37. The Poster presentations are listed on pages 38-42. The presenting author is the first name listed, unless otherwise indicated with an asterisk(*). Full abstracts are only available on the conference website. This printed program represents the schedule of presentations as of March 28, 2017. Please be sure and check the conference registration desk onsite for last minute cancellations and changes to the technical schedule.

STUDENT PRESENTATION COMPETITION & FEEDBACK

Student presenters have an opportunity to compete for the "Best Student Presentation Award," or opt to receive informal feedback on their oral or poster presentation. This will provide students with an opportunity to gain experience presenting their research results and to gather feedback from other landscape ecologists. For the Best Student Presentation Award competition, volunteer judges have been selected from among the professionals in attendance. For informal feedback on their presentation, students will identify willing evaluators from the meeting attendees. Look for "review me" signs on posters of students who are looking for feedback.

SCHEDULE AT-A-GLANCE

✪= *Social Event* ☕ = *Coffee Break*

Sunday, April 9		
9:00 AM - 5:00 PM	**Pre-conference Full Day Workshops** *{pre-registration and additional fee required}*	*See details page 12*
12:00 PM - 6:30 PM	**Conference Registration Desk Open & Exhibitor Set-up**	*Constellation F Foyer*
2:00 PM - 4:00 PM	**Student Activity: Walking Tour of Downtown Baltimore's Inner Harbor** Join US-IALE student representatives Rose Graves and Brian Pickard for an informal afternoon exploring downtown Baltimore and the Inner Harbor.	*Meet at hotel lobby at 1:45 PM*
3:00 PM - 6:00 PM	**US-IALE Executive Committee Meeting**	*Douglas (3rd Floor)*
6:30 PM - 8:30 PM	✪ **Welcome Social** Join your colleagues to kick off the US-IALE 2017 Annual Meeting	*Pisces (15th Floor)*

Monday, April 10		
7:00 AM - 5:00 PM	**Conference Registration Desk Open**	*Constellation F Foyer*
7:00 AM - 8:30 AM	**Continental Breakfast**	*Atrium*
8:00 AM - 9:30 AM	**Welcome Remarks, Awards Presentation, and Plenary Session I** • Welcome to Baltimore! Matt Baker, Local Host • Awards Presentation: NASA-MSU Awards • Keynote Presentation: Dr. J. Morgan Grove, USDA Forest Service & Dr. Steward Pickett, Cary Institute of Ecosystem Studies	*Constellation C/D/E/F*
8:00 AM - 5:30 PM	**Poster Set-up**	*Harborview Room*
9:30 AM - 10:00 AM	☕ **Coffee Break**	*Atrium*
10:00 AM - 12:00 PM	**Concurrent Technical Sessions & Symposia**	*See details pages 16-19*
12:00 PM - 1:30 PM	**Student/Mentor Lunch & Attendee Lunch**	*Constellation C/D/E/F*
1:40 PM - 5:20 PM	**Concurrent Technical Sessions & Symposia**	*See details pages 19-24*
3:00 PM - 3:20 PM	☕ **Coffee Break**	*Atrium*

SCHEDULE AT-A-GLANCE

5:30 PM - 7:00 PM	**Poster Session & Social**	*Harborview Room & Atrium*
7:00 PM - 9:00 PM	**NASA/MSU Dinner** *{Invitation only}* 20th Anniversary of NASA-MSU Program	*Pisces (15th Floor)*
9:00 PM - 11:00 PM	✪ **Student Social: Offsite at Tir Na Nog Irish Pub** A 5-minute walk from the hotel.	*Offsite: Harborplace & The Gallery 201 E. Pratt St.*
Tuesday, April 11		
7:00 AM - 5:00 PM	**Conference Registration Desk Open**	*Constellation F Foyer*
7:00 AM - 8:00 AM	**Landscape Ecology Editorial Board Meeting**	*Douglas*
7:00 AM - 8:30 AM	**Continental Breakfast**	*Atrium*
8:00 AM - 9:30 AM	**Plenary Session II & Awards** • Awards Presentation: Recipients of the US-IALE Student Travel and Foreign Scholar Travel Awards • Keynote Presentation: Ann Swanson, Chesapeake Bay Commission	*Constellation C/D/E/F*
9:30 AM - 10:00 AM	**Coffee Break**	*Atrium*
10:00 AM - 12:00 PM	**Concurrent Technical Sessions & Symposia**	*See details pages 25-28*
12:00 PM - 1:00 PM	**Lunch On Your Own** Explore nearby downtown Baltimore options; recommendations will be available at the registration desk.	
1:00 PM - 5:00 PM	**Half-day Workshops** *{pre-registration and additional fee required}*	*See details page 12*
1:00 PM - 5:00 PM	**Half-day Excursions** *{pre-registration and additional fee required}*	*See details page 13*
6:00 PM - 7:00 PM	✪ **Networking Reception - We'll Pick Up The Tab Social** Professionals can 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. Cash bar will also be available.	*Harborview Room & Atrium*
7:00 PM - 9:00 PM	✪ **Awards Banquet and Keynote Presentation** Dr. William Dennison, University of Maryland Center for Environmental Sciences	*Constellation C/D/E/F*

SCHEDULE AT-A-GLANCE

Wednesday, April 12

7:00 AM - 8:00 AM	**US-IALE Executive Committee & General Business Meeting** *{Members welcome}*	*Constellation C/D/E/F*
7:00 AM - 5:00 PM	**Conference Registration Desk Open**	*Constellation F Foyer*
7:00 AM - 8:30 AM	**Continental Breakfast**	*Atrium*
8:00 AM - 9:30 AM	**Plenary Session III & Announcement of Upcoming US-IALE Meeting** • 2018 US-IALE • Keynote Presentation: Dr. Hugh Possingham, The University of Queensland, Australia	*Constellation C/D/E/F*
9:30 AM - 10:00 AM	**Coffee Break**	*Atrium*
10:00 AM	**Bidding Closes for Foreign Scholar Travel Award Silent Book Auction**	
10:00 AM - 12:00 PM	**Concurrent Technical Sessions & Symposia**	*See details pages 29-32*
12:00 PM - 1:40 PM	**Lunch On Your Own** Explore nearby downtown Baltimore options; recommendations will be available at the registration desk.	
1:40 PM - 5:20 PM	**Concurrent Technical Sessions & Symposia**	*See details pages 32-37*
3:00 PM - 3:20 PM	**Coffee Break**	*Atrium*
Evening	**Dinner On Your Own** Explore Baltimore options; recommendations will be available at the registration desk.	

Thursday, April 12

7:00 AM - 8:00 AM	**Coffee Break**	*Hotel Lobby*
All Day	**Full-day Excursions** *{pre-registration and additional fee required}*	*See details page 13*

FUN FACT: The state bird is the Baltimore Oriole, also the mascot for the MLB team. The Baltimore Orioles play in Oriole Park at Camden Yards, less than a mile from the hotel. Catch the Orioles vs. Yankees on Sunday, April 9th at 1:35 PM.

SOCIAL & NETWORKING EVENT HIGHLIGHTS

REFRESHMENTS & MEALS

The Full Conference and Student registration fee includes access to meals and social events as noted on the Schedule at-a-Glance, including: Welcome Reception on Sunday night; Poster Social on Monday night; the Awards Banquet on Tuesday night; continental breakfast Monday, Tuesday and Wednesday; lunch on Monday; and daily coffee breaks. Please note that lunch is on your own Tuesday and Wednesday–a great opportunity to get out and explore the culinary scene of the Inner Harbor!

SUNDAY, APRIL 9

FOR STUDENTS ONLY: Walking Tour of Downtown | 2:00 PM - 4:00 PM
Join us for an informal exploration of downtown Baltimore and the inner harbor! Get an insiders perspective of this vibrant city, and have an opportunity to meet other student attendees. If you're interested, RSVP to the US-IALE Student Representatives Rose Graves (ragraves@wisc.edu) and Brian Pickard (b.r.pickard@gmail.com). Meet up in the main lobby of the hotel by 1:45 PM.

Welcome Social | 6:30 PM - 8:30 PM
Join your colleagues to celebrate the start of the 2017 US-IALE Annual Meeting. Relax and mingle with old friends and make new connections. Enjoy light hors d'oeuvres, and a cash bar!

MONDAY, APRIL 10

Student/Mentor Lunch | 12:00 PM - 1:30 PM | Constellation
(Advance registration required)*
The student-mentor lunch is a great opportunity for students and landscape ecology professionals to interact in a small group and discuss professional/career development in an informal setting. Enjoy a meal and conversation about career trajectories, qualifications needed for different professional tracts, and transitioning from graduate school, among other topics. We encourage students to come prepared to ask questions! Students and professionals sign up in advance for this event on the Conference Registration Form and indicate area of interest— academia, state and federal government, nonprofit organizations or business.
***Please note: new format!** Based on feedback from previous years, the Student/Mentor lunch will be organized a bit differently this year. Prior to the conference, the US-IALE Student Representatives will match students with professionals and assign students/mentors to a specific table based on a mutual field of interest. Your table assignment will be provided when you check-in onsite, along with your nametag and conference materials.

Poster Session & Social | 5:30 PM - 7:00 PM | Harborview Room
Check out 60 posters in the Harborview Room during the Poster Session & Social. Authors will be available to answer your questions and discuss their work. See pages 38-42 for a listing of posters and authors. Enjoy hors d'oeuvres and a cash bar.

Student Social | 9:00 PM - 11:00 PM | Offsite: Tir Na Nog Irish Pub
FOR STUDENTS ONLY!
Please plan to join US-IALE student attendees for a night of socializing and unwinding with friends new and old. A drink ticket will be distributed to each student upon arrival at the social. Look for US-IALE Student Representatives Brian Pickard and Rose Graves when you arrive.
(Proper I.D. required for alcoholic beverages; tickets can also be used for nonalcoholic beverages.)

AWARDS BANQUET & RECEPTION

TUESDAY, APRIL 11

Networking Reception & "We'll Pick up the Tab" Social | 6:00 PM - 7:00 PM | Harborview Room
To foster interaction between students and professional landscape ecologists, we're asking professional attendees to "pick up the tab" for student drinks at the pre-banquet evening social. Participating professionals purchase tickets (at conference registration desk) for random distribution to attending students ($20 for 3 drink tickets). Students will receive a ticket with a sponsor's name on the back. To redeem their ticket, students must find this sponsor at the social and introduce themselves. Students are encouraged to ask others at the social for help in finding their sponsor. Happy networking!

Awards Banquet & Keynote Presentation | 7:00 PM - 9:00 PM | Constellation
Master of Ceremonies: President, US-IALE - Ross Meentemeyer, College of Natural Resources and Director, Center for Geospatial Analytics, North Carolina State University

Awards Presentation: US-IALE Best Student Presentation Award, Distinguished Service, Distinguished Landscape Practitioner, Distinguished Landscape Ecologist, Outstanding Paper, and Certificates of Appreciation for Outgoing Officers

Keynote Presentation: Tell a Compelling Story - Combining Killer Graphics and Narrative for Effective Science Communication, Dr. William Dennison, University of Maryland Center for Environmental Sciences

The role of science in society is rapidly evolving. In many ways, science is becoming more politicized, with scientific results being viewed as fodder in contentious societal debates. This can result in scientists becoming more circumspect in their communication to broader audiences. Yet good science, communicated effectively, is needed now more than ever for solving, not just studying, the crucial environmental issues facing society. Therefore, every scientist must develop an effective communication skill set that includes the ability to craft compelling narrative and graphics, while maintaining scientific rigor. Developing a narrative, rather than simply conveying information, is crucial to being effective communicators. Developing killer graphics that showcase data in innovative ways can be effective for publication in scientific journals, and well designed graphics can also transcend the scientific audience to reach broader audiences. Combining graphics and narratives is what constitutes a compelling scientific story. A scientific story maintains scientific rigor and is based on established facts, but it becomes compelling with the graphics and narrative. Therefore, in this hour we will engage in an interactive exercise to introduce skills necessary to become more visually and narrative literate. Visualizations and story are ingrained in the human psyche - scientists who use these tools to communicate their work stand out and have a larger impact on society.

About the Speaker:

Dr. William Dennison is a Professor of Marine Science and the Vice President for Science Application at the University of Maryland Center for Environmental Science (UMCES). Dr. Dennison's primary mission within UMCES is to coordinate the Integration and Application Network (IAN), a group of scientists committed to solving, not just studying, environmental problems. The IAN team has been developing environmental report cards in iconic locations around the world, training scientists in principles of science communication and pioneering new ways to communicate complex scientific concepts. Dr. Dennison rejoined UMCES in 2002 following a ten-year stint at the University of Queensland in Brisbane, Australia.

PLENARY SESSION I

PLENARY SESSION I | MONDAY, APRIL 10 | 8:00 AM - 9:30 AM

The Social-Ecological Landscapes of Baltimore: Legacy, Process, and Change

J. Morgan Grove, USDA Forest Service, Baltimore Field Station, Baltimore MD
Steward T.A. Pickett, Cary Institute of Ecosystem Studies, Millbrook NY

Baltimore is home to one of the two urban Long-Term Ecological Research (LTER) projects in the U.S. A key component of the project is to understand and employ information on the various kinds of landscapes that exist in metropolitan Baltimore. This talk will give a brief overview of the history and structure of the Baltimore Ecosystem Study LTER; present important discoveries the project has made concerning social-ecological spatial heterogeneity in the metropolis; illustrate what has been learned about the legacies and lags involved in landscape change; and suggest some of the multi-scalar connections among the different kinds of landscapes and their relationship to ecosystem functioning and dynamics. The contrasts between the major paradigms of urban ecology -- ecology in, of, and for the city -- helps us to understand the changing role of spatial heterogeneity in urban theory, and how the different kinds and conceptions of heterogeneity have become important tools to inform policy, planning, and urban design. The use of landscape principles to inform future research and application is the final contribution of the talk.

About the Speakers:

J. Morgan Grove

Dr. J. Morgan Grove is a Team Leader for the USDA Forest Service's Baltimore Field Station. Dr. Grove has worked in Baltimore since 1989 and was a founding member of the Baltimore Ecosystem Study (BES) LTER. Grove leads the social science team for BES, where his research focuses on long-term dynamics of urban forests, environmental quality, human health, property regimes, land management, and watersheds. For 17 years, he has researched the long-term effects of urban vegetation on city ecosystem processes. Morgan has 110 published articles to date that focus on different aspects of human dynamics related to urban forests. He addresses how we can improve watersheds and how the Forest Service can assist with plans to make our cities as green as possible.

Steward T.A. Pickett

Dr. Pickett is a distinguished senior scientist and plant ecologist at the Cary Institute of Ecosystem Studies. He directs the Baltimore Ecosystem Long-Term Ecological Research program. Dr. Pickett's projects relate to the role of spatial heterogeneity in community and landscape structure and dynamics. He has produced books on ecological heterogeneity, humans as components of ecosystems, conservation, bridging ecology and urban design, the philosophy of ecology, and linking ecology and ethics. He is currently working on the Buell-Small Succession Study, a long-term ecological experiment designed to document succession on released agricultural fields; and the Baltimore Ecosystem Study, a ground-breaking urban ecology project that investigates the ecological, cultural, and economic forces that shape the environmental quality of urbanized areas.

PLENARY SESSION II

PLENARY SESSION II | TUESDAY, APRIL 11 | 8:00 AM - 9:30 AM

Chesapeake Bay: Restoration at the Landscape Level

Ann Swanson, Chesapeake Bay Commission

As part of a multi-state effort to address historical problems of overfishing and land use management in a culturally and commercially important estuary on the east coast of the United States, the Chesapeake Bay Commission serves as the legislative arm of the multi-jurisdictional Chesapeake Bay Program. This talk will provide an overview of the Program's restoration efforts across different spatial scales. The Commission sits at the interface between science and policy, and the interplay between these perspectives influences how we are tackling the problem: sometimes watershed wide, state wide, county, parcel, or 3 m squared pixels.

About the Speaker:

Ann Swanson has served as a leader in the Bay restoration for nearly 35 years, the last 29 as the Executive Director of the Chesapeake Bay Commission, a tristate legislative authority serving the states of Pennsylvania, Maryland and Virginia. There is hardly a piece of Bay-related policy or legislation that Swanson has not been involved in. A trained wildlife biologist and forest ecologist, she graduated with honors from the University of Vermont and Yale University. She served on the Board of the University of Vermont's Rubenstein School of Environment and Natural Resources for 23 years and as its longest-serving Chair. Her many awards include the Bay region's highest Conservation Award, Conservationist of the Year (2001), the YMCA Outstanding Women in Industry Twin Award (2011), the Alliance for the Chesapeake Bay Environmental Leadership Award (2013) and Doctor of Laws from the University of Vermont (2014). In 2015, she was recognized as an Admiral of the Chesapeake Bay, awarded by Maryland's governor to those who have demonstrated an extraordinary commitment to the conservation and restoration of the Chesapeake Bay, the surrounding landscape, and the life that inhabits them.

PLENARY SESSION III

PLENARY SESSION III | WEDNESDAY, APRIL 12 | 8:00 AM - 9:30 AM

Does Systematic Conservation Planning Really Deliver Outcomes?

Hugh Possingham, The University of Queensland, Australia and Chief Scientist, The Nature Conservancy

Systematic conservation planning emerged in the early 1980s ("gap analysis" in the USA) and since then there are thousands of reports and papers that purport to assist people with selecting areas for protection. However, there has also been criticism of the approach, people have argued there is an "implementation gap" in which the many plans fail to deliver on the ground. This talk will briefly review the past, present and future of systematic conservation planning. It will provide example successes and failures of systematic conservation planning on the ground (and in the sea). The talk will conclude that systematic conservation planning, and tools like Marxan, have had extensive and deep impact globally for conservation, but this way of thinking does not always deliver a good outcome because politics can overwhelm the science.

About the Speaker:

Dr. Possingham is Director of The Centre for Biodiversity and Conservation Science at the University of Queensland and Chief Scientist at The Nature Conservancy (TNC). A Fellow of the Australian Academy of Sciences, Possingham's groundbreaking research has been published in such leading journals as Science, Nature and Proceedings of the National Academy of Sciences (PNAS). His lab works on problems to secure the world's biological diversity: efficient nature reserve design, habitat reconstruction, monitoring, optimal management of populations for conservation, cost-effective conservation actions for threatened species, pest control and population harvesting, survey methods for detecting bird decline, bird conservation ecology, environmental accounting and metapopulation dynamics. His team's Marxan software drove Australia's rezoning of the Great Barrier Reef Marine Park, and is now used in more than 150 countries to change the face of about 5% of the planet's surface. Throughout his career, Dr. Possingham has used science to elevate the impact and effectiveness of conservation programs. In his position as Chief Scientist of TNC, he leads the work of more than 600 scientists engaged in conservation efforts impacting 69 countries around the world.

INDEX

Looking for a specific author or session? Search features are available on the US-IALE 2017 conference website! Visit **http://baltimore2017.usiale.org/presentation-details/18328** for a full listing of presentations, including abstracts.

Or scan the QR code on your mobile device:

WORKSHOPS

Pre-registration and an additional fee is required for workshop participation. Note: workshop fee does not include lunch; lunch is on your own.

SUNDAY, APRIL 9 | 9:00 AM - 5:00 PM | FULL-DAY

Applications of the Telecoupling Framework and Hands-on Exercises with the Telecoupling Toolbox

Organizers: Jianguo (Jack) Liu, Francesco Tonini, Yue Dou, Hongbo Yang – Center for Systems Integration and Sustainability, Michigan State University, USA
Location: Baltimore Room
Fee: $60
Intended Audience: The target audience encompasses attendees at any career stage and with a variety of interests, such as landscape change, climate change, natural resource policy and governance, biodiversity, ecology, and landscape patterns and processes.

In this workshop, we will introduce the telecoupling framework, present applications of the framework, and conduct hands-on exercises with the new Telecoupling Toolbox, a free and open-source suite of spatially-explicit tools for describing and quantifying telecouplings. Workshop participants will have an opportunity to apply the framework and toolbox to their socio-environmental issues of interest. Programming skills are not required for this workshop.

TUESDAY, APRIL 11 | 1:00 PM - 5:00 PM | HALF-DAY

High Resolution Figures in R Code: Statistics, Geographic Information Systems (GIS) Maps and 3 Dimensional Plots for Enhancing Research and Publications

Organizer: Falk Huettmann, Ph.D., Associate Professor -EWHALE lab- Inst. of Arctic Biology, Biology & Wildlife Department, University of Alaska Fairbanks
Location: Conway Room
Fee: $35
Intended Audience: All

This half-day workshop will provide an overview of how to craft publication quality plots and maps using R. This session will demonstrate how to create effective R graphics for most statistical outputs including labeling, axes and range manipulations, subsetting, color choices, and multi-panel graph designs. While the focus of this workshop is not really on how to create 'artistic' outputs, it will enable participants to solve their technical graphics problems in R on their own and find good strategies on how to obtain a statistically valid and convincing output all created by repeatable R code. (Please note that this workshop is not directly hands-on for all applications, but participants can re-produce all the approaches and code presented during or after the workshop. Use of personal laptops equipped with R to run the code during this session is encouraged.

Integrating Science into Policy and Speaking the Language of Policy Makers

Organizer: Audrey Mayer, PhD, Associate Professor, Michigan Technological University; Chair, US-IALE Policy Committee
Date and Time: Tuesday, April 11 - 12:00pm to 3:00pm
Location: Douglas Room
Fee: $35
Intended Audience: All

Recent events in the United States and the world have emphasized that there are significant obstacles to creating and implementing policies that are "evidence-based" using the best available science. As scientists, we often grapple with our role in the policy process, striving to toe the line between advocating for our science and politicizing it. In this moderated discussion, we will learn from a panel of AAAS Science & Technology Policy Fellows who have experience with infusing policy with ecological science.

Student Organized Workshop: Unleash the Power of Grass GIS

Organizers: Brian Pickard, NCSU, US-IALE Student Representative; Vaclav Petras, NCSU; Anna Petrasova, NCSU; Rose Graves, UW-Madision, US-IALE Student Representative
Location: President Room
Fee: no charge.
Intended Audience: Students Only

In this workshop we will introduce GRASS GIS 7, a free and open source scientific platform for geoprocessing. The workshop will provide a step by step tutorial to guide beginners from basic raster and vector analysis to more complex topics such as landscape structure analysis, lidar data processing, and spatio-temporal data handling and visualization. Participants will also learn how to use GRASS GIS with Python to optimize their workflows, and how to leverage the integration of R with GRASS GIS for statistical analysis. No prior knowledge of GRASS GIS, Python or R is required.

FIELD TRIPS

We're pleased to offer these exciting and informative scientific excursions. Half-day trips will be offered on Tuesday, April 11th and full-day trips will be offered on Thursday, April 13th. Pre-registration and an additional fee is required.

TUESDAY, APRIL 11 | 1:00 PM - 5:00 PM | HALF-DAY

National Aquarium – Sustainable Seafood Talk and Tour

Join us and a special guest speaker at the National Aquarium to get a behind the scenes tour geared towards sustainable seafood! Learn what Baltimore and the Chesapeake Bay are doing to help educate commercial fisherman and famers, distributors and local market owners. After the talk and tour, you will be able to explore the aquarium and see the tropical forest exhibits, watch the dolphin show, and see shark alley! All on the other side of the Inner Harbor just a short walk from the conference hotel.
Fee: $65

Olmsted-designed Parks and Wooded Areas

Although many are familiar with the Olmsted-designed parkways of Manhattan, the Olmsted's also played an important role in the planning of Baltimore's parks, especially following the comprehensive report of 1904. This tour will begin at the city's north-south center (Charles St.) for Wyman Park Dell, a small gem, perhaps the most complete example of an Olmsted-planned park in Baltimore; then follow the set of Olmsted-inspired (and now historically designated parkways through Druid Hill Park--the city's major comprehensive park) and further along Gwynn's Falls Parkway to Gwynn's Falls Park, where the wooded, secluded valley always comes as a surprise to those not expecting such scenery within the city's limits.
Fee: $30

Restoration Efforts in Baltimore's Inner Harbor

Once known for its high levels of pollution, Baltimore's Inner Harbor has experienced a remarkable resurgence in both economic and environmental terms. This tour will visit ongoing Harbor restoration efforts as part of the Waterfront Partnership; including several floating wetlands, biohut oyster structures, and the demonstration of a novel living bulkhead system. A short jaunt to the Dundalk Marine Terminal will allow us to visit a functional water scrubber system that uses algae to remove pollutants from Harbor waters.
Fee: $30

THURSDAY, APRIL 13 | 8:00 AM - 5:00 PM | FULL-DAY

Smithsonian Environmental Research Center

Since 1965, the Smithsonian Institution has operated a scientific research center on the Chesapeake Bay. Its campus boasts 2,650 acres of diverse landscape, 16 miles of protected shoreline, and a 92,000 ft LEED-platinum laboratory building with advanced energy and storm water management systems. SERC's research in the coastal zone--where 70% of the world's people live--addresses pressing environmental issues, including: toxic chemicals, water quality, invasive species, land use, fisheries, and global change. On the tour of research sites, talk with SERC scientists about elevated CO_2 experiments in coastal marshes, the effects of tree diversity on forest function, watershed discharges to Chesapeake Bay, the effects of stream restoration on nutrient transport, and other SERC projects. Cruise the Rhode River on the R/V SERC (weather permitting) and observe shoreline transitions first hand.
Fee: $80

The Baltimore Ecosystem Study Site Tour

Since 1998, Baltimore has been home to the National Science Foundation's first Urban Long Term Ecological Research Site: The Baltimore Ecosystem Study. A pioneer in the study of urban ecosystems, the BES-LTER is known for its use of watersheds in understanding the integrative effects of human land use own ecological function in a patch-dynamics framework along an urban-rural gradient. Tour some of the sites that have informed this groundbreaking scientific study and learn about feedback among social, economic, and historical processes that drive differences in ecological outcomes.
Fee: $75

AWARDS

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.

Thank you to these companies who provided publications or software for the Foreign Scholar Travel Award silent auction. The proceeds from the silent auction conducted at each annual meeting support these travel grants: Clark Labs, Clark University; John Hopkins University Press; Springer; Island Press; Sinauer Associates; National Aquarium.

Foreign Scholar Travel Award Recipients:

Altaaf Mechiche-Alami, Ph.D. Candidate, Center of Excellence for Integration of Social and Natural Dimensions of Sustainability (LUCID), Department of Physical Geography and Ecosystem Science, Lund University, Sweden
>> Oral Presentation: S12. Telecoupling people and landscapes among distant places around the world
Monday, 2:20 PM – 2:40 PM, Constellation C Room
Disentangling the complexities of dynamic telecoupled LSLA; A network approach

Patrick Laby, Doctoral School of Natural Resource Management and Development, University of Antananarivo, MADAGASCAR
>> Oral Presentation: S15. Forest for people: understanding landscape change and local community participation/
Wednesday, 10:40 AM – 11:00 AM, Columbia Room
Structured multi-stakeholder learning process for adaptive decision-making and innovative governance schemes in the Northeast of Madagascar.

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, Maryland Sea Grant and the MDPI journal *Land*. Ten students were selected by the US-IALE Awards Committee to receive these awards, which include up to $500 for travel to the conference.

2017 Student Travel Awardees

Bryce Adams, The Ohio State University
Elsa Anderson, University of Illinois at Chicago
Joseph Drake, University of Massachusetts –Amherst
Nathan Gill, Clark University
Samantha Hauser, University of Louisiana at Lafayette
Lindsay Keener-Eck, University of Connecticut
Marjorie Liberati, University of Connecticut
Caitlin Littlefield, University of Washington
Lucas Nathan, University of Connecticut
Carly Ziter, University of Wisconsin-Madison

AWARDS

NASA-MSU PROFESSIONAL ENHANCEMENT AWARDS PROGRAM

The NASA-MSU Professional Enhancement Awards are made possible by support from the National Aeronautics and Space Administration (NASA) and Michigan State University (MSU). The program has supported more than 400 students from approximately 150 institutions worldwide since 1998 to present their research and interact with leading scientists and other attendees at meetings of US-IALE and IALE.

This is the 20th consecutive year of the program. The 21 awardees will have opportunities to meet at a special dinner gathering, learn the latest developments in landscape ecology, present their research, build professional networks with other conference attendees, and collaborate on telecoupling (http://csis.msu.edu/telecoupling).

NASA-MSU Awardees (Class of 2017)

Zeenatul Basher, USGS
Nadine Bohner, University of Guelph, Canada
Brooke Cassell, Portland State University
Anand Chaudhary, Baylor University
Laura D'Acunto, Purdue University
Cecilie Friis, Humboldt-Universität zu Berlin, Germany
Maryam Gharehaghaji, University of Illinois at Chicago
Anna Klevtcova, North Carolina State University
Altaaf Mechiche-Alami, Lund University, Sweden
Amanda Michaels, North Carolina State University
Ethan Miller, Yale University
Monica Noon, Clark University
Hogeun Park, Michigan State University
Chelsie Romulo, George Mason University
Ramon Felipe Bicudo Silva, University of Campinas, Brazil
Jing Sun, Michigan State University
Melanie Torres, Murray State University
Heather Triezenberg, Michigan Sea Grant
Madelyn Tucker, Wayne State University
Hayley Tumas, University of Georgia
Bo Zhang, University of Miami

The 2017 NASA-MSU Awards Committee consists of Jianguo (Jack) Liu (Chair), Garik Gutman (NASA), Jennifer Carducci (MSU), Gretchen Ewart (MSU), Sue Nichols (MSU), and James Vatter (MSU).

TECHNICAL SESSIONS - MONDAY, APRIL 10

MONDAY 10:00 AM - 12:00 PM

S12. Telecoupling People and Landscapes Among Distant Places Around the World

Room: Constellation C

Moderator: Jianguo Liu, Center for Systems Integration and Sustainability, Michigan State University

10:00 AM **Transatlantic wood pellet trade: A telecoupled system replete with agents.**
Esther S. Parish, Bredesen Center; Virginia H. Dale, Oak Ridge National Laboratory; Anna J. Herzberger, Michigan State University; Colin C. Phifer, Michigan Technological University

10:20 AM **Application of network analysis for quantifying spatial, temporal, and multi-scale dynamics of telecoupled systems: An example using global soy trade.**
Michael L. Treglia, The Nature Conservancy; Danica Schaffer-Smith, Nicholas School of The Environment and Earth Sciences, Duke University; Dorothy Maguire, USDA Agricultural Research Service; Stephanie Tomscha, University of British Columbia; Karl Jarvis, Southern Utah University; Jianguo Liu, Center for Systems Integration and Sustainability, Michigan State University

10:40 AM **Importing genetically modified crops worsens domestic environment in non-genetically modified crop planted only countries.**
Jing Sun, Zhenci Xu, Jianguo Liu – Center for Systems Integration and Sustainability, Michigan State University

11:00 AM **The Sino-Brazilian telecoupled soybean system and cascading effects over the exporting country.**
Ramon FB Silva, NEPAM/Unicamp; Mateus Batistella, EMBRAPA; Dou Yue, Center for Systems Integration and Sustainability, Michigan State University; Emilio F. Moran, Center for Systems Integration and Sustainability, Michigan State University; Sara Torres, Center for Global Change and Earth Observations, Michigan State University; Jianguo Liu, Center for Systems Integration and Sustainability, Michigan State University

11:20 AM **What happens outside the boundary: Investigating the spillover effects using the telecoupling framework.**
Yue Dou, Center for Systems Integration and Sustainability, Michigan State University; Jianguo Jack Liu, Center for Systems Integration and Sustainability, Michigan State University; Ramon Bicudo, University of Campinas

11:40 AM **How do we model telecoupling? Approaches to quantitative modelling of global food trade and local land use.**
James DA Millington, King's College London; Hang Xiong, King's College London; Wei Xu, Zhejiang University; Steven O. Peterson, Imperial College London; Jeremy Woods, Imperial College London

S14. Habitat Heterogeneity and Reef-Associated Organisms

Room: Constellation D

Moderator: Lucas McEachron, Florida Fish & Wildlife

10:00 AM **Habitat heterogeneity among mesophotic coral ecosystems of St. Thomas, US Virgin Islands.**
Sarah H. Groves, NOAA NCCOS; Daniel M. Holstein, Duke University Marine Laboratory; Derek P. Manzello, NOAA AOML; Ian C Enochs, NOAA AOML; Marilyn E. Brandt, University of The Virgin Islands; Tyler B. Smith, University of The Virgin Islands

10:20 AM **Habitat heterogeneity and resilience of coral reef metapopulations to climate changes.**
Daniel M. Holstein, Marine Laboratory, Nicholas School of The Environment and Earth Sciences, Duke University; Tyler B. Smith, Center for Marine and Environmental Studies, University of The Virgin Islands; Ruben Van Hooidonk, Cooperative Institute for Marine and Atmospheric Science, University of Miami

10:40 AM **Matrix effects and reef fish distributions.**
Lucas G. McEachron, Florida Fish and Wildlife; Robert J. Fletcher, University of Florida

11:00 AM **Modeling connectivity of Nassau grouper, *Epinephelus striatus* larvae between protected spawning sites and nearshore settlement habitats in the US Caribbean.**
Lauren K. Olinger, University of The Virgin Islands; Daniel M. Holstein, Duke University

11:20 AM **Flat and complex temperate reefs provide similar support for fish: Evidence for a unimodal species-habitat relationship.**
Avery B. Paxton, Institute of Marine Sciences, University of North Carolina Chapel Hill; Emily A. Pickering, Institute of Marine Sciences, University of North Carolina Chapel Hill; Alyssa M. Adler, Institute of Marine Sciences, University of North Carolina Chapel Hill; J. Christopher Taylor, National Ocean Service, National Centers for Coastal Ocean Science; Charles H. Peterson, Institute of Marine Sciences, University of North Carolina Chapel Hill

11:40 AM **Forecasting coral community vulnerability to climate change on reefs in Puerto Rico and the US Virgin Islands.**
Shay Viehman, NOAA National Centers for Coastal Ocean Science Beaufort Lab; James S. Clark, Duke University; Patrick N. Halpin, Duke University

S5. Applications of Macrosystems Ecology for Climate and Landscape Change

Room: Constellation E

Moderator: Jennifer Costanza, North Carolina State University

10:00 AM **A global analysis of elevational spread of nonnative plants.**
Qinfeng Guo, USDA; Songlin Fei, Purdue University; Zehao Shen, Peking University; Basil Lannone III, University of Florida; Jon Knott, Purdue University; Steven Chown, Monash University

10:20 AM **Two-century long plant invasions in the eastern USA.**
Songlin S. Fei, Insu I. Jo, Teresa Clark – Purdue University

10:40 AM **Landscape correlates of forest plant invasions in the eastern United States.**
Kurt H. Riitters, USDA Forest Service; Kevin M. Potter, North Carolina State University; Basil V. Iannone, University of Florida; Christopher M. Oswalt, USDA Forest Service; Songlin Fei, Purdue University

11:00 AM **U.S. protected areas do not adequately conserve forest tree species rarity.**
Kevin M. Potter, North Carolina State University

11:20 AM **Toward assessing and projecting climate change effects on forest communities across the US.**
Jennifer K. Constanza, North Carolina State University; John W. Coulston, USDA Forest Service; David N. Wear, USDA Forest Service

11:40 AM **Forecasting climate change refugia and potential migration rates for montane species with a spatially dynamic vegetation model.**
Jane R. Foster, Anthony W. D'Amato – Rubenstein School of Environment and Natural Resources, University of Vermont

Connectivity

Room: Constellation F

Moderator: Sam Cushman, U.S. Forest Service

10:00 AM **Using agent based movement models to compare the effectiveness of several connectivity modeling methods.**
Samuel A. Cushman, USDA Forest Service; Zaneta Kaszta, USDA Forest Service

10:20 AM **Elephant utilization of a land-use mosaic, Kavango-Zambezi Region: Implications for conflict and conservation.**
Erin Buchholtz, Texas A&M University; Lee Fitzgerald, Ecoexist Project, Botswana; Graham McCulloch, Texas A&M University; Anna Songhurst, Texas A&M University; Amanda Stronza, Texas A&M University

10:40 AM **Using graph theory to compare urban greenspace networks optimized for ecological and environmental justice: Trade-offs between ecological efficiency and equity.**
David AR Williams, Sarah E. Gergel, Nicholas Coops – The University of British Columbia

11:00 AM **Modeling Gopher Tortoise habitat and habitat connectivity in Georgia using multi-season Landsat Imagery and Circuitscape.**
Jeffrey Hepinstall – Cymerman, University of Georgia; Thomas J. Prebyl, University of Georgia; Bryan L. Nuse, Georgia Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources, University of Georgia; Clint T. Moore, Georgia Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry and Natural Resources, University of Georgia & US Geological Survey; Rachel L. Bormann, University of Georgia

11:20 AM **Optimal reserves for spatially structured gopher tortoise populations, under forecast landscape conditions in Georgia, USA.**
Bryan L. Nuse, Georgia Cooperative Fish and Wildlife Research Unit, Warnell School of Forestry & Natural Resources, University of Georgia; Clinton T. Moore, US Geological Survey and Georgia Cooperative Fish and Wildlife Research Unit, University of Georgia; Nahid Jafari, University of Florida; Jeffrey Hepinstall –Cymerman, Warnell School of Forestry & Natural Resources, University of Georgia; Matt J. Elliott, Nongame Section, Georgia Department of Natural Resources

TECHNICAL SESSIONS - MONDAY, APRIL 10

Policy & Planning

Room: Annapolis

Moderator: Monica Dorning, U.S. Geological Survey

10:00 AM **The sage-grouse umbrella: How do sage-grouse core area policies affect landscape change and other species of conservation need?**
Monica A. Dorning, Steve L. Garman, Jay E. Diffendorfer, Darius J. Semmens, Todd J. Hawbaker, Kenneth J. Bagstad – US Geological Survey

10:20 AM **Estimating carbon sequestration within global environment facility funded protected areas in Kenya to aid future policy.**
Alison N. Thieme, Madeline Ruid, Erin Glennie, Perry Oddo, Compton J. Tucker – NASA DEVELOP

10:40 AM **Modeling land and water management in the Rio Grande River coupled human-natural system.**
Kyndra J. Hanson, University of Oklahoma; Jack Friedman, Center for Applied Social Research, University of Oklahoma; Drew Icenogle, University of Oklahoma; Stephanie Paladino, Center for Applied Social Research, University of Oklahoma; Jennifer Koch, University of Oklahoma

11:00 AM **Optimization of land use and evaluation of ecological and economic benefits.**
Xia Li, Beijing Normal University

11:20 AM **Analysis on urban ecological security patterns for the sponge city.**
Rencai Dong, Siyuan Li, Huanhuan Li, Xueqi Zhang, Mingyi Wang – Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Arid Landscapes

Room: Baltimore

Moderator: Paul Marr, Shippensburg University

10:00 AM **Historical continuous cover dynamics of sagebrush steppe in the western United States from 1984–2015: Pattern, drivers, and impacts.**
Hua Shi, InuTeq, US Geological Survey Earth Resources Observation & Science Center; Matthew Rigge, InuTeq, US Geological Survey Earth Resources Observation & Science Center; Collin Homer, US Geological Survey Earth Resources Observation & Science Center; Geroge Xian, US Geological Survey, Earth Resources Observation & Science Center

10:20 AM **Global warming and ecological degradation in Central Asia.**
Yaning Chen, Zhi Li – State Key Laboratory of Desert and Oasis Ecology, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

10:40 AM **Evaluation of soil erosion risk and its influencing factors in the Ili River Valley, China.**
Weihong Li, Chenggang Zhu – State Key Laboratory of Desert and Oasis Ecology, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

11:00 AM **Understanding land system change through scenario-based simulations: A case study from the drylands in northern China.**
Zhifeng Liu, Beijing Normal University; Peter H. Verburg, VU University Amsterdam; Jianguo Wu, Arizona State University; Chunyang He, Beijing Normal University

11:20 AM **Landscape changes in the Colchane Comuna of northern Chile: 2005-2016.**
Paul G. Marr, Shippensburg University; Claire A. Jantz, Shippensburg University; Patrick A. Jantz, Northern Arizona University

11:40 AM **The dynamics of temporary surface water bodies in the drylands of northern China from 2000 to 2015.**
Siyuan Gou, Beijing Normal University

Ecosystem Services

Room: Columbia

Moderator: Derek Van Berkel, North Carolina State University

10:00 AM **Hotspot assessment of the Chicago region: Cost effective trade-offs and accessibility of ecosystem services.**
Mayra I. Rodriguez-Gonzalez, Purdue University; Brady S. Hardiman, Purdue University

10:20 AM **Valuation of environmental ecosystem services and benefits of bioenergy crop integration into agricultural landscapes.**
Maria C. Negri, Argonne National Laboratory; Herbert Ssegane, Monsanto; Silvia Secchi, Southern Illinois University; Justin Kozak, Southern Illinois University; Colleen Zumpf, Argonne National Laboratory; Jules Cacho, Argonne National Laboratory; Patty Campbell, Argonne National Laboratory

10:40 AM **Mapping the change of ecosystem service bundles in Pearl River Delta, China.**
Mingyue Zhao, Peking University; Jian Peng, Peking University; Yuanxin Liu, Beijing Normal University; Yanglin Wang, Peking University

11:00 AM **Leveraging social media to analyse and map landscape values and perceptions.**
Derek B. Van Berkel, North Carolina State University; Ross K. Meentemeyer, North Carolina State University

TECHNICAL SESSIONS - MONDAY, APRIL 10

Disturbance

Room: Frederick

Moderator: Brian Buma, University of Alaska Southeast

10:00 AM **Climate change and emerging disturbances: Widespread mortality across 10 degrees of latitude and half the range of a climate-threatened conifer.**
Brian J. Buma, University of Alaska Southeast; Sarah M. Bisbing, California Polytechnic State University; Paul E. Hennon, California Polytechnic State University; Lauren E. Oakes, Stanford University; Sari C. Saunders, BC Ministry of Forests

10:40 AM **Is initial post-disturbance regeneration indicative of longer term trajectories?**
Nathan S. Gill, Clark University; Dominik Kulakowski, Clark University; Tom T. Veblen, University of Colorado; Steward TA Pickett, Cary Institute of Ecosystem Studies; Daniel Jarvis, Vermont Technical College

11:00 AM **Compounded disturbances: An emerging forest disease alters patterns of post-fire regeneration in Big Sur, CA.**
Allison B. Simler, University of California Davis; Margaret R. Metz, Lewis and Clark College; Kerri M. Frangioso, University of California Davis; Ross K. Meentemeyer, North Carolina State University; David M. Rizzo, University of California Davis

11:20 AM **Drivers of seagrass spatial configuration: The role of hydrodynamic thresholds.**
Amy V. Uhrin, NOAA & University of Wisconsin; Monica G. Turner, University of Wisconsin

11:40 AM **Demography of decline, disturbance and recovery in a northern hardwood forest.**
Natalie S. van Doorn, USDA Forest Service Pacific Southwest Research Station; John J. Battles, University of California at Berkeley; Timothy J. Fahey, Cornell University; Steven P. Hamburg, Brown University

MONDAY 1:40 PM - 5:20 PM

S12. Telecoupling People and Landscapes Among Distant Places Around the World

Room: Constellation C

Moderator: Jianguo Liu, Michigan State University

1:40 PM **Global, multi-scale telecoupling of smallholder land use and livelihoods: Social-ecological analyses of decision-making, vulnerability, and resilience.**
Karl S. Zimmerer, Pennsylvania State University; Eric F. Lambin, Stanford University; Steven J. Vanek, Pennsylvania State University; Sara Cavallo, Pennsylvania State University

2:00 PM **Telecoupled land use change in Northern Laos: The relevance and applicability of the telecoupling framework in qualitative empirical case study research.**
Cecilie Friis, IRI THESys, Humboldt – Universität zu Berlin; Jonas Ø Nielsen, IRI THESys, Humboldt – Universität zu Berlin

2:20 PM **Disentangling the complexities of dynamic telecoupled LSLA: A network approach.**
Altaaf Mechiche-Alami, Lund University; Carlo Piccardi, Politecnico di Milano; Jonathan W. Seaquist, Lund University

2:40 PM **Post-disaster recovery of human well-being in biodiverse areas: Drivers and conservation implications.**
Hongbo Yang, Jindong Zhang, Jianguo Liu – Michigan State University

3:00 PM **BREAK**

3:20 PM **Revisiting Global Seabirds-fisheries interactions and telecoupling for the Patagonian Shelf: A deeper view of the global contract.**
Andrea Raya Rey, Centro Austral de Investigaciones Científicas y Técnicas, Consejo Nacional de Investigaciones Científicas y Técnicas; Falk Huettmann, University of Alaska Fairbanks

3:40 PM **Examining social and environmental conditions that enable payment for watershed services programs for the world's largest cities through a telecoupling framework.**
Chelsie L. Romulo, George Mason University; Jennifer H. Fair, Yale University; Stella Cousins, University of California Berkeley; Drew Bennett, Private Lands Conservation Initiative, Warner College of Natural Resources, Colorado State University; Stephen Posner, Gund Institute for Ecological Economics at University of Vermont; Heidi Huber-Stearns, Institute for a Sustainable Environment, University of Oregon; Ryan Richards, George Mason University; Rob McDonald, Global Cities Program, The Nature Conservancy

4:00 PM **Grain trade and zebra mussels in Great Lakes Region.**
Heather A. Triezenberg, James Roche – Michigan Sea Grant/Michigan State University/Extension/Fisheries & Wildlife

4:20 PM **Vulnerability by river zone: Examining global rivers through a telecoupling lens.**
Zeenatul Basher, Michigan State University; Abigail J. Lynch, US Geological Survey; Chelsie Romulo, US Geological Survey; William W. Taylor, Michigan State University; T. Douglas Beard Jr., US Geological Survey

4:40 PM **Telecoupled landscapes and ecosystem services between nature reserves and cities.**
Zhiqiang Zhao, Center for Systems Integration and Sustainability, Michigan State University; Fang Wang, Center for Systems Integration and Sustainability, Michigan State University; Jindong Zhang, Center for Systems Integration and Sustainability, Michigan State University; Lu Zhang, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; Hongbo Yang, Center for Systems Integration and Sustainability, Michigan State University; Zhiyun Ouyang, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; Jianguo Liu, Center for Systems Integration and Sustainability, Michigan State University

5:00 PM **Governance challenges in telecoupled systems.**
Jens Newig, Leuphana University Lüneburg; Andrea Lenschow, University Osnabrück; Edward Challies, Leuphana University Lüneburg

S6. Evolving Landscapes Under Institutional Change, Globalization, and Cultural Influence in Contrasting Urban Systems

Room: Constellation D

Moderator: Peilei Fan, Michigan State University

1:40 PM **Evolving landscapes under institutional change, globalization, and cultural influence in contrasting urban systems: An introduction.**
Peilei Fan, Michigan State University; Jiquan Chen, Michigan State University; Jianguo Wu, Arizona State University

2:00 PM **Patterns, processes, and sustainability of urbanization: An urban landscape ecology framework.**
Jianguo Wu, Arizona State University & Beijing Normal University

2:20 PM **SUSHI & emergent features in earthlight.**
Geoffrey M. Henebry, Lan H. Nguyen, Baojuan Zheng – South Dakota State University

2:40 PM **Hybrid global urban built-up area: Bayesian sequential integration toward big data.**
Zutao Yang, Peilei Fan, Jiquan Chen, Ranjeet John – Center of Global Change and Earth Observation; Raffaele Lafortezza, University of Bari, Italy

3:00 PM **BREAK**

3:20 PM **Decadal changes in carbon monoxide air pollution over major cities in the US and Southeast, East, and North Asia: How does urban size matter?**
Baojuan Zheng, Geospatial Sciences Center of Excellence, South Dakota State University; Kirsten M. de Beurs, The University of Oklahoma; Braden C. Owsley, The University of Oklahoma; *Geoffrey M. Henebry, Geospatial Sciences Center of Excellence, South Dakota State University

3:40 PM **Permanent physical and social landmarks constrain urban landscape development and function in culturally contrasting societies.**
Jiquan Chen, Michigan State University; Hogeun Park, Michigan State University; Li Tian, Chinese Academy of Sciences; Zutao Ouyang, Michigan State University; Vincenzo Giannico, University of Bari; Peilei Fan, Michigan State University; Raffaele Lafortezza, University of Bari, Italy

4:00 PM **An examination of the impacts of urbanization on the environment: Experiences from current and former capitals of Myanmar.**
Chuyuan Wang, Arizona State University; Soe W. Myint, Arizona State University

4:20 PM **Stresses of the natural disaster and environmental problem to urban residents in China: A perspective from the population movement in rapid urbanization.**
Chunyang He, Qingxu Huang – State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University

4:40 PM **Impacts of urban expansion on agricultural landscape in Beijing-Tianjin-Hebei Region, China.**
Liying Guo, Chinese Academy of Agricultural Sciences and George Mason University; Liping Di, George Mason University; Qing Tian, George Mason University; Ziheng Sun, George Mason University; Jintao Li, Beijing Normal University; Yang Zhou, Beijing Normal University

5:00 PM **Urban sprawl, informal settlements, and inequality: Spatiotemporal patterns and drivers of Ger districts in Ulaanbaatar, Mongolia.**
Hogeun Park, Peilei Fan, Ranjeet John, Jiquan Chen – Michigan State University

5:20 PM **Urban landscape evolution under globalization and transitional economy: An integrated framework for Siberian cities.**
Peilei Fan, Michigan State University; Jiquan Chen, Michigan State University; Zutao Ouyang, Michigan State University; Anna Kavshinina, Ural Mountain Nature Reserve, Russia; Tatiana Loboda, University of Maryland at College Park

S5. Applications of Macrosystems Ecology for Climate and Landscape Change

Room: Constellation E

Moderator: Jennifer Costanza, North Carolina State University

1:40 PM **Climate change vulnerability of eastern US tree species: A spatial framework incorporating habitat fragmentation, migration potential and climate projections.**
Patrick A. Jantz, SICCS, Northern Arizona University; Brendan M. Rogers, Woods Hole Research Center; Scott J. Goetz, Northern Arizona University

2:00 PM **Macroscale analysis of climate resilience of beech and spruce in Europe.**
Peter Vogt, European Commission, Joint Research Centre; Giorgio Vacchiano, European Commission, Joint Research Centre; Davide Ascoli, University of Naples Federico II; Andy Hacket Pain, University of Oxford, St. Catherine's College

2:20 PM **What can we learn from mapping of forest canopy change activities?**
Karen G. Schleeweis, Gretchen G. Moisen, Chris Toney, Todd Schroeder, Elizabeth A. Freeman – USDA Forest Service

2:40 PM **BREAK**

3:20 PM **Understanding the representativeness of FLUXNET for upscaling carbon flux from eddy covariance measurements.**
Forrest M. Hoffman, Oak Ridge National Laboratory; Jitendra Kumar, Oak Ridge National Laboratory; William W. Hargrove, USDA Forest Service; Nathaniel Collier, Oak Ridge National Laboratory

3:40 PM **Delaying management matters for species vulnerable to climate change: Identifying local conservation actions to address broad scale threats.**
Ilona R. Naujokaitis-Lewis, Environment and Climate Change Canada; Lars L. Pomara, U.S. Fish & Wildlife Service; Benjamin J. Zuckerberg, University of Wisconsin-Madison

4:00 PM **A global model of predicted peregrine falcon distribution with open source GIS Code & 100 open access layers: A template for inferring processes from patterns.**
Sumithra Sriram, Georgia Institute of Technology; Falk Huettmann, University of Alaska Fairbanks

4:20 PM **Quantifying change in avian distribution by looking back to understand the magnitude of future projections.**
Stephen N. Matthews, School of Environment and Natural Resources, The Ohio State University; Louis R. Iverson, USDA Forest Service; Matthew Shumar, Ohio Bird Conservation Initiative; Matthew P. Peters, USDA Forest Service; Anantha M. Prasad, USDA Forest Service

4:40 PM **A macroscale assessment of recreational fishing vs human population density on non-native aquatic invasions.**
Amy Davis, US Environmental Protection Agency; John A. Darling, US Environmental Protection Agency

S3. Urban Heterogeneity and Social-Ecological Research

Room: Constellation F

Moderator: Daniel Childers, Arizona State University

1:40 PM **Emergent landscapes in Baden, St Louis.**
Rod J. Barnett, Jacqueline A. Margetts – Washington University in St. Louis

2:00 PM **Co-production of land cover: Integration of social and ecological processes to track dynamic heterogeneity of urban systems.**
Mary L. Cadenasso, University of California Davis; Steward TA Pickett, Cary Institute of Ecosystem Studies

2:20 PM **A Janus View: Long term history and legacies of environmental injustice in Baltimore, Maryland and its implications for analytical frameworks and a more sustainable and resilient city.**
Morgan Grove, USDA Forest Service; Steward TA Pickett, Cary Institute of Ecosystem Studies; Dexter Locke, SESYNC; Chris G. Boone, Arizona State University; Geoff Buckley, Ohio University; Laura A. Ogden, Dartmouth College; Charles Lord, Renew Energy Partners

2:40 PM **Heterogeneity in urban stormwater infrastructure at city, regional, and national scales.**
Rebecca L. Hale, Idaho State University

3:00 PM **BREAK**

3:20 PM **Staying cool in the city: Household and neighborhood scale contrasts in personal heat exposure and landscape modifications.**
David M. Hondula, Arizona State University; Paul C. Chakalian, Arizona State University; Liza C. Kurtz, Arizona State University; Lance E. Watkins, Arizona State University; Mary K. Wright, Arizona State University; Sharon L. Harlan, Northeastern University; Matei Georgescu, Arizona State University

3:40 PM **Positives visions of urban transformation and adaptation.**
David M. Iwaniec, Arizona State University; Elizabeth M. Cook, Universidad Austral de Chile; Melissa J. Davidson, Arizona State University; Nancy B. Grimm, Arizona State University

4:00 PM **Ecosystem service demand in urbanizing South Africa: Lessons for sustainable development globally.**
Melissa R. McHale, Colorado State University; Scott M. Beck, Colorado State University; Louie Rivers, III, North Carolina State University

4:20 PM **Urban ecology in flyover country: Quantifying the outsized role of rural urban growth on connectivity among wetlands in the Great Plains.**
Lucas J. Heintzman, Texas Tech University; Nancy E. Mcintyre, Texas Tech University

4:40 PM **Perspectives on Heterogeneity.**
John A. Wiens, Oregon State University and University of Western Australia

5:00 PM **Community garden soils as foundations for novel agro-ecosystems in cities.**
Monika H. Egerer, University of California Santa Cruz; Alessandro Ossola, University of Melbourne; Brenda B. Lin, CSIRO Water and Land Flagship

S16. Biodiversity Offsetting: New Tools and Approaches to Measure and Improve Outcomes

Room: Annapolis

Moderator: Laura Sonter, University of Vermont

1:40 PM **When, why and how do biodiversity offsets incorporate ecosystem services goals?**
Laura J. Sonter, Jesse Gourevitch, Insu Koh, Charles Nicholson, Leif Richardson, Aaron Schwartz, Nitin Singh, Keri Watson, Taylor Ricketts – University of Vermont

2:00 PM **Biodiversity offsetting and no net loss in dynamic landscapes.**
Martine Maron, The University of Queensland; Laura J. Sonter, University of Vermont; Nicole Tomsett, The University of Queensland; Dan Wu, The University of Queensland

2:20 PM **Wetland offsetting and its role in regional biotic homogenization.**
Jeffrey W. Matthews, Edward PF Price – University of Illinois at Urbana-Champaign

2:40 PM **Brazil's market for trading forest certificates.**
Britaldo S. Filho, Universidade Federal de Minas Gerais; Marcia Macedo, Woods Hole Research Center

S13. Landscape Ecology in Support of Policy

Room: Annapolis

Moderator: Audrey Mayer, Michigan Technological University

3:20 PM **When agencies move on: Agenda setting and research cycles.**
Audrey L. Mayer, Michigan Technological University

3:40 PM **Co-evolution of forest landscape policies and science: A case of the good, the bad, and the ugly.**
Ajith H. Perera, Ontario Forest Research Institute; Joe Churcher, Ontario Ministry of Natural Resources and Forestry; Tom D. Nudds, University of Guelph

4:00 PM **Integrating climate science into forest management and policy using a collaborative approach.**
Robert Scheller, Portland State University; Melissa S. Lucash, Portland State University; Eric J. Gustafson, USDA Forest Service Northern Research Station; Brian R. Sturtevant, USDA Forest Service Northern Research Station

4:20 PM **Saving the grasslands: Using social science to inform Farm Bill Conservation Program Policy.**
Lily A. Sweikert, Larry Gigliotti – South Dakota Cooperative Fish and Wildlife Research Unit

4:40 PM **The southeast conservation adaptation strategy: Applying decision frameworks in a changing world.**
Greg Wathen, Gulf Coastal Plains and Ozarks Landscape Conservation Cooperative

S18. Floodplain Landscape Ecology: Patterns, Processes and Management Implications

Room: Baltimore

Moderator: Molly Van Appledorn, U.S. Geological Survey Upper Midwest Environmental Sciences Center

1:40 PM **The evolving nature of riparian landscape ecology.**
John A. Kupfer, University of South Carolina

2:00 PM **Assessing the limits of aerial detection of floodplain sediment storage using multi-temporal LiDAR.**
Zach Clifton, Andrew Miller, Matt Baker – University of Maryland Baltimore County

2:20 PM **Hydro-geographic analyses of floodplain forest ecosystems: Quantifying ecologically-relevant patterns of inundation from continental to local scales.**
Molly Van Appledorn, U.S. Geological Survey Upper Midwest Environmental Sciences Center; Matthew E. Baker, University of Maryland Baltimore County; Andrew J. Miller, University of Maryland Baltimore County

2:40 PM **Nutrient and sediment inputs change soil structure and biogeochemistry in floodplain ecosystems: A cross-study synthesis.**
Gregory B. Noe, Cliff Hupp, Edward Schenk, Ken Krauss, Sara McMillan, Dan Kroes, Scott Ensign, Jaimie Gillespie, Kristin Wolf, Changwoo Ahn – U.S. Geological Survey

3:00 PM **BREAK**

3:20 PM **The importance of sediment deposition to maintaining floodplain ecosystem productivity and species composition.**
Christian O. Marks, The Nature Conservancy

3:40 PM **Longitudinal controls on landform and vegetation dynamics on inter-dam segments of the Missouri River.**
Mark D. Dixon, University of South Dakota; Katherine J. Skalak, US Geological Survey; Danielle J. Quist, University of South Dakota; Michael L. Scott, Utah State University; WC Johnson, South Dakota State University

4:00 PM **Interactive effects of flood inundation, browsing, and an invasive grass on vegetation and soil nutrient dynamics on the Upper Mississippi River floodplain.**
Nathan R. De Jager, US Geological Survey Upper Midwest Environmental Sciences Center

4:20 PM **Integrating habitat suitability modeling and environmental flows for the conservation of the flood-dependent Alligator Gar, *Atractosteus spatual* on the Lower Guadalupe River, Texas.**
Kimberly M. Meitzen, Jennifer LR Jensen, Thom B. Hardy – Texas State University

4:40 PM **Governance and floodplain management in urban streams in Portland, Oregon.**
Alan Yeakley, University of Maryland Baltimore County

Socio-Environmental

Room: Columbia

Moderator: Michelle Johnson, USDA Forest Service

1:40 PM **A spatial analysis of resident attitudes toward Timber Rattlesnakes, *Crotalus horridus* in central Connecticut.**
Lindsay S. Keener-Eck, University of Connecticut; Anita T. Morzillo, University of Connecticut; Rebecca A. Christoffel, Snake Conservation Society

2:00 PM **A landscape-level human dimensions analysis of water scarcity in a water-rich state.**
Anita T. Morzillo, Janet R. Barclay, Zoë B. Smiarowski, Lindsay S. Keener-Eck – University of Connecticut

2:20 PM **The dynamics of poverty in the Agro-Pastoral Transitional Zone in Northern China: A perspective from the poverty gap from 2000 to 2010.**
Qiang Ren, State Key Laboratory of Earth Surface Processes and Resource Ecology, Beijing Normal University

2:40 PM **BREAK**

3:20 PM **Exploring spatial patterns of environmental stewardship organizations in relation to neighborhood-level socioeconomic and environmental characteristics in four major North American cities.**
Dexter H. Locke, Clark University; Michelle L. Johnson, USDA Forest Service; Erika S. Svendsen, USDA Forest Service; Lindsay K. Campbell, USDA Forest Service; Morgan J. Grove, USDA Forest Service; Michele Romolini, Center for Urban Resilience, Loyola Marymount University; Lynne M. Westphal, USDA Forest Service

3:40 PM **Understanding where environmental stewardship organizations work in relation to organizational characteristics and the greater stewardship network in Philadelphia, PA.**
Michelle L. Johnson, USDA Forest Service Northern Research Station; Erika S. Svendsen, USDA Forest Service Northern Research Station; Sarah C. Low, USDA Forest Service Northern Research Station; Dexter H. Locke, Clark University; Lorien Jasny, University of Exeter

4:00 PM **Planning urban landscapes to improve connectivity for people and pollinators: A case study in New York City.**
Michael L. Treglia, Lauren Alleman, Emily Maxwell – The Nature Conservancy

4:20 PM **Can sustainability standards and certification improve landscape outcomes?**
Keith L. Kline, Oak Ridge National Laboratory

4:40 PM **Bridging land change science and green infrastructure practice: Challenges and opportunities for developing use-inspired basic research for resilient and sustainable urban regions.**
Laura R. Musacchio, University of Minnesota; Geoffrey M. Henebry, South Dakota State University

5:00 PM **Transdisciplinary collaborative models for bridging land change science and green infrastructure practice: Advancing knowledge and action along a boundary work spectrum.**
Laura R. Musacchio, University of Minnesota; Geoffrey M. Henebry, South Dakota State University

Climate Change

Room: Frederick

Moderator: Sarah Goslee, USDA Agricultural Research Service Pasture Systems and Watershed Management Research Unit

1:40 PM **Planning pastures: Taking species attributes to the landscape.**
Sarah C. Goslee, USDA Agricultural Research Service Pasture Systems and Watershed Management Research Unit

2:00 PM **Ground-truthing climate-scapes: Issues for quantifying, predicting, perceiving and debating accurate thermal landscapes.**
Falk Huettmann, University of Alaska Fairbanks

2:20 PM **A multi-model, multi-response ensemble approach to improve tree species habitat prediction confidence under changing climates.**
Anantha M. Prasad, USDA Forest Service

2:40 PM **Too hot at any scale: Vulnerability of common desert reptiles and amphibians to climate change.**
Joseph C. Drake, University of Massachusetts; Krista Mougey, Texas Tech University; Matt Vandlandeghem, The Nielsen Company; Sharmistha Swain, Texas Tech University; Samantha Kahl, Texas Tech University; Kerry Griffis-Kyle, Texas Tech University

3:00 PM **BREAK**

3:20 PM **Detecting stable climate refugia through topoclimate modeling.**
Alexander H. Nelson, Robert F. Baldwin, Paul Leonard – Clemson University

3:40 PM **Seasonal variability of surface water with increasing crop intensity.**
Kunwar K. Singh, Joshua M. Gray – North Carolina State University

4:00 PM **Effects of climate change on ecosystem dynamics of longleaf pine forests across a soil moisture gradient.**
Smriti S Bhotika, Christie Hawley, E. Louise Loudermilk – USDA Forest Service

4:20 PM **Global hotspots for nature-based solutions to climate change: Identifying synergies between REDD+ and biodiversity conservation.**
Mariano Gonzalez-Roglich, Jenny Hewson, Karyn Tabor, Hsin Tien, Leonardo Saenz, Celia Harvey, Steve Panfil, Kellee Koenig, David Hole – Conservation International

4:40 PM **Adaptation corridors: Integrating genetic information into the mapping of past and future climate corridors.**
Andrew V. Gougherty, University of Maryland Center for Environmental Science; Vikram E. Chhatre, University of Wyoming; Stephen R. Keller, University of Vermont; Matthew C. Fitzpatrick, University of Maryland Center for Environmental Science

TECHNICAL SESSIONS - TUESDAY, APRIL 11

TUESDAY 10:00 AM - 12:00 PM

S8. Patterns, Processes, and People: Linking Landscape Ecology and Land Architecture

Room: Constellation C

Moderator: Amy Frazier, Oklahoma State University

10:00 AM **Patterns, processes, and people: A framework for linking land architecture and landscape ecology.**
Amy E. Frazier, Oklahoma State University; Peter J. Kedron, Oklahoma State University; Jacqueline M. Vadjunec, Oklahoma State University; Todd D. Fagin, University of Oklahoma

10:20 AM **Effects of forest fragmentation and land use history on woodland salamander abundance.**
Kristen M. Brubaker, Bradley J. Cosentino – Hobart and William Smith Colleges

10:40 AM **Florida's low tree species richness in relation to Peninsular Effect.**
Lian Feng, Youngsang Kwon – University of Memphis

11:00 AM **Identifying ecological relevancy in land architecture.**
Peter J. Kedron, Oklahoma State University; Amy E. Frazier, Oklahoma State University; Jaqueline M. Vadjunec, Oklahoma State University; Todd D. Fagin, University of Oklahoma

11:20 AM **Does forest fragmentation explain differences in tree species diversity in Southeastern Mixed Forest?**
Youngsang Kwon, University of Memphis; Amy Frazier, Oklahoma State University; Peter Kedron, Oklahoma State University

11:40 AM **Forest fragmentation in the wildland-urban interface: Measuring human-induced land cover change through landscape and surface metrics.**
Amy F. Frazier, Peter J. Kedron, Jean Wang – Oklahoma State University

S11. Integrated Modeling for the Analysis of Socio-Ecological Systems

Room: Constellation D

Moderator: Jennifer Koch, The University of Oklahoma

10:00 AM **A combined ABM-CA approach for analyzing effects of peer-influence and landowner decision-making processes on urbanization patterns.**
Monica A. Dorning, US Geological Survey; Jennifer Koch, The University of Oklahoma; Scott Beck, North Carolina State University; Georgina M. Sanchez, North Carolina State University; Ashwin Shashidharan, North Carolina State University; Lindsey S. Smart, North Carolina State University; Jordan W. Smith, Utah State University; Derek Van Berkel, North Carolina State University; Qiang Zhang, North Carolina State University; Ross K. Meentemeyer, North Carolina State University

10:20 AM **Pitfalls of hybrid modeling.**
Christian Neuwirth, LMU Munich

10:40 AM **Analyzing coupled human and natural systems: The example of current and future water consumption in Oklahoma City.**
Qingtao Zhou, University of Oklahoma; Monika Ghimire, Oklahoma State University; Claude Buerger, University of Oklahoma; Tracy Boyer, Oklahoma State University; Heather Mccarthy, University of Oklahoma; Peter Kedron, Oklahoma State University; Jennifer Koch, University of Oklahoma

11:00 AM **Coupled model of coastal landscape vulnerability and resilience: Assessing the interactions of natural habitat and climate change.**
Yangfan Li, Xiamen University

11:20 AM **An integrated modeling approach for understanding the environmental impacts of land use and transportation decisions.**
Daniel L. Engelberg, National Center for Smart Growth; Harutyun Shahumyan, University College Dublin; Gerrit Knaap, National Center for Smart Growth; Avin Uri, National Center for Smart Growth; Sevgi Erdogan, National Center for Smart Growth

11:40 AM **Integrating global socioeconomic influences and ecosystem processes into a regional land-use change model for China.**
Honglei Jiang, Beijing Normal University

TECHNICAL SESSIONS - TUESDAY, APRIL 11

Phenology

Room: Constellation E

Moderator: Andrew Elmore, UMCES-AL

10:00 AM **Landscape patterns in the response of North American eastern deciduous forests to an earlier spring inferred from tree rings.**
Andrew J. Elmore, Steven M. Guinn, David M. Nelson – University of Maryland Center for Environmental Science; Joseph M. Craine, Jonah Ventures

10:20 AM **Allowing existing vegetation to empirically define its own phenological year to quantify the degree and timing of seasonality across the United States.**
William W. Hargrove, USDA Forest Service Eastern Threat Center; Danny C. Lee, USDA Forest Service; Steven P. Norman, USDA Forest Service; Forrest M. Hoffman, Oak Ridge National Laboratory; Jitendra Z. Kumar, Oak Ridge National Laboratory

10:40 AM **Using phenometric lapse rates in mountain landscapes to assess pasture condition & vulnerability.**
Geoffrey M. Henebry, Monika A. Tomaszewska, Kamilya Kelgenbaeva – South Dakota State University

11:00 AM **Modelling land surface phenology and seasonality in highland pastures in the Kyrgyz Republic.**
Monika A. Tomaszewska, South Dakota State University; Geoffrey M. Henebry, South Dakota State University; Cole P. Krehbiel, Innovate!, Inc., contractor to the US Geological Survey, Earth Resources Observation & Science Center

11:20 AM **PhenoMap: Weekly land surface phenology in the western US.**
Charlie C. Schrader-Patton, USDA Forest Service Western Wildlands Environmental Threat Assessment Center/Redcastle Resources, Inc; Nancy J. Grulke, USDA Forest Service Western Wildlands Environmental Threat Assessment Center; Jacqueline P. Ott, USDA Forest Service Forest Service Contractor Rocky Mountain Research Station, Forest and Grassland Research Laboratory

11:40 AM **The impacts of fence removal on vegetation dynamics within the Kruger to Canyons Biosphere Reserve, South Africa.**
Helaine M. Linden, University of Connecticut; Chadwick D. Rittenhouse, University of Connecticut; Izak P. Smit, Scientific Services, South African National Parks; Isaac M. Ortega, University of Connecticut

Watersheds

Room: Constellation F

Moderator: Robert Hilderbrand, UMCES-AL

10:00 AM **Responses of the stream microbiome to land use, land cover, and local attributes.**
Robert H. Hilderbrand, Appalachian Laboratory, University of Maryland Center for Environmental Science; Stephen R. Keller, University of Vermont; Sarah Laperriere, University of California Santa Barbara; Alyson E. Santoro, University of California Santa Barbara; Jason Cessna, Appalachian Laboratory, University of Maryland Center for Environmental Science; Regina Trott, Appalachian Laboratory, University of Maryland Center for Environmental Science

10:20 AM **Modeling capture fisheries, aquaculture, and human ecology in the Lake Victoria Basin.**
Dale S. Rothman, University of Denver; Roelof Boumans, Affordable Futures, LLC

10:40 AM **Pulses of biogenic nitrogen cycling lead to atmospheric-based nutrient spiraling in southern California.**
G. Darrel Jenerette, Jennifer R. Eberwein, James Sickman – University of California Riverside

11:00 AM **Land use patterns, water quality, and social vulnerability: A spatial analysis of Phoenix's drainage systems.**
Joomee Lee, Arizona State University; Chingwen Cheng, Arizona State University

11:20 AM **Teasing apart the effects of natural and constructed green infrastructure on spatiotemporal flow and temperature habitat templates for fish communities.**
Naomi E. Detenbeck, US Environmental Protection Agency Atlantic Ecology Division; Alisa C. Morrison, ORISE at Atlantic Ecology Division; Ralph W. Abele, US Environmental Protection Agency Region 1

TECHNICAL SESSIONS - TUESDAY, APRIL 11

Fire

Room: Annapolis

Moderator: Bob Keane, USDA Forest Service

10:00 AM **Long-term response of oak-hickory regeneration to partial harvest and repeated fires: Influence of light and moisture.**
Louis R. Iverson, Todd F. Hutchinson, Matthew P. Peters, Daniel A. Yaussy – USDA Forest Service

10:20 AM **Can the arrangement of pine barrens mediate the spread of wildfires under various climate change scenarios?**
Madelyn M. Tucker, Wayne State University; Daniel M. Kashian, Wayne State University

10:40 AM **Cumulative patterns of logging and fire, 1940–2009: Consequences on the structure of the eastern Canadian boreal forest.**
Yan G. Boucher, Ministère des Forêts, de la Faune et des Parcs du Québec; Maude Perrault-Hébert, Université Sherbrooke; Richard A. Fournier, Université Sherbrooke; Pierre Drapeau, Université du Québec à Montréal

11:00 AM **Modeling landscape change from alternative wildfire suppression policies.**
Ana M. Barros, Oregon State University; Alan A. Ager, Rocky Mountain Research Station; Michelle A. Day, Oregon State University

11:20 AM **Evaluating ecological tipping points across levels of wildfire suppression on US northern Rocky Mountain landscapes using spatial simulation and novel statistical analysis.**
Bob E. Keane, USDA Forest Service Missoula Fire Sciences Laboratory; Kathy A. Gray, California State University at Chico; Lisa M. Holsinger, USDA Forest Service Missoula Fire Sciences Laboratory; Brett E. Davis, USDA Forest Service Missoula Fire Sciences Laboratory

11:40 AM **Patterns of post-fire forest recovery in complex topography.**
Caitlin E. Littlefield, School of Environmental and Forest Sciences, University of Washington

Urban Forests

Room: Baltimore

Moderator: Alessandro Ossola, U.S. EPA

10:00 AM **Measuring the pulse of urban green infrastructure: Vegetation dynamics across residential landscapes.**
Alessandro Ossola, Matthew E. Hopton – US Environmental Protection Agency, Office of Research and Development, National Risk Management Research Laboratory

10:20 AM **Evaluating spatial patterns of supply, demand and potential provision of ecosystem services to identify optimal places for developing green infrastructure in Santiago de Chile.**
Ignacio C. Fernandez, Arizona State University; Jianguo Wu, Arizona State University

10:40 AM **Plant community composition change and dynamics in 25 years, Dupage County, Illinois.**
Maryam Gharehaghaji, University of Illinois at Chicago; Emily S. Minor, University of Illinois at Chicago; Scott N. Kobal, Dupage County Forest Preserve District; Wayne TA Lampa, Dupage County Forest Preserve District

11:00 AM **Green infrastructure, urban form, and temperature in Baltimore.**
Anna A. Scott, Darryn W. Waugh, Benjamin Zaitchik – Johns Hopkins University

11:20 AM **Modeling forest composition and biomass across large urbanized landscapes: A case study from the Chicago metropolitan region.**
Robert T. Fahey, University of Connecticut; Chao Fan, The Field Museum; Mark K. Johnston, The Field Museum; Brady S. Hardiman, Purdue University; Lindsay Darling, The Morton Arboretum; Lydia Scott, The Morton Arboretum; Christine R. Rollinson, The Morton Arboretum

11:40 AM **Baltimore forest stewards: Visions and motivations.**
Katherine A. Ralston, University of Maryland Baltimore County

TECHNICAL SESSIONS - TUESDAY, APRIL 11

Planning

Room: Columbia

Moderator: Jennifer Dowdell, Biohabitats, Inc.

10:00 AM **Landscape conservation design and the iCASS Platform: An adaptation pathway to social transformability in sustainability planning.**
Robert M. Campellone, U.S. Fish & Wildlife Service; Kristina M. Chouinard, U.S. Fish & Wildlife Service; Nicholas A. Fisichelli, National Park Service; John A. Gallo, Conservation Biology Institute; Joseph R. Lujan, U.S. Fish & Wildlife Service; Ronald J. McCormick, Bureau of Land Management; Thomas A. Miewald, North Pacific Landscape Conservation Cooperative; Brent A. Murry, Caribbean Landscape Conservation Cooperative; Dwight J. Pierce, Washington Department of Fish and Wildlife; Daniel R. Shively, USDA Forest Service

10:20 AM **Conservation planning in constrained landscapes: Addressing economic and social tradeoffs to assist refuge expansion.**
Marjorie R. Liberati, Chadwick D. Rittenhouse, Jason C. Vokoun – University of Connecticut

10:40 AM **Moving from pilot projects to a landscape conservation program.**
Bruce M. Roll, Clean Water Services

11:00 AM **Coupled social and ecological processes underlying establishment and function of conservation easements.**
Nakisha T. Fouch, Clemson University; Robert F. Baldwin, Clemson University; David M. Theobald, Conservation Science Partners; David L. White, Clemson University; Mickey Lauria, Clemson University; Caitlin Dyckman, Clemson University

11:20 AM **Harnessing ecological patterns and processes in community planning: The Baltimore City Green Network Plan.**
Jennifer A. Dowdell, Biohabitats Inc.; Amy G. Gilder Busatti, Baltimore City Department of Planning

11:40 AM **To link the temp-spatial pattern of urban expansion to the sustainability of urbanization: A case study in Beijing-Tianjin-Hebei Regions.**
Ding Li Chen, Juan Xiao Bian, Hao Ran Sun – Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Spatial Analysis

Rom: Frederick

Moderator: Jelena Vukomanovic, North Carolina State University

10:00 AM **Not seeing the forest for the trees: Viewscape modeling with LiDAR.**
Jelena Vukomanovic, John B. Vogler, Kunwar K. Singh, Anna Petrasova – North Carolina State University

10:20 AM **Validation of landscape metrics in socio-ecological systems: Applying methods from the social sciences.**
Josh R. Gunn, Texas A&M University at Galveston

10:40 AM **Revealing biases in the incomplete sampling of ecological networks.**
Erica A. Newman, University of Arizona; Marcus AM de Aguiar, Universidade Estadual de Campinas; Marie-Josée Fortin, University of Toronto; Paulo R. Guimaraes, Jr., Universidade de São Paulo; Dominique Gravel, Université de Sherbrooke; David H. Hembry, University of Arizona; Laura A. Burkle, Montana State University; Timothée Poisot, Université de Montréal; Mathias M Pires, Universidade de São Paulo; Jimmy L. O'Donnell, University of Washington

11:00 AM **Leveraging big data to inform policy for climate resilience in Madagascar.**
Monica L. Noon, Alex Zvoleff, Stephanie Kimball, Rachel Neugarten – Conservation International

11:20 AM **3D rasters are powerful and you already know how to use them.**
Vaclav Petras, Anna Petrasova, Helena Mitasova – North Carolina State University

11:40 AM **How to make your research reproducible.**
Vaclav Petras, North Carolina State University

TECHNICAL SESSIONS - WEDNESDAY, APRIL 12

WEDNESDAY 10:00 AM - 12:00 PM

Landscape Assessment

Room: Constellation C

Moderator: Peter Cada, Tetra Tech, Inc.

10:00 AM **Multiscale analysis of commodity crop expansion effects on tropical deforestation in sub-Saharan Africa.**
Elsa M. Ordway, Stanford University; Gregory P. Asner, Carnegie Institution for Science; Eric F. Lambin, Stanford University

10:20 AM **Influence of landscape change on black-necked crane habitat at Caohai, China.**
Hannah M. Larson, University of Wisconsin-Madison; Haijun Su, Guizhou University; Janet Silbernagel, University of Wisconsin-Madison

10:40 AM **Nutrient transfer landscapes of the Common Hippopotamus, *Hippopotamus amphibius*.**
Tristan A Nuñez, University of California Berkeley; Douglas M. Mccauley, University of California Santa Barbara; Mordecai O. Ogada, Conservation Solutions Afrika; Kelly K. Caylor, University of California Santa Barbara; Mary E. Power, University of California Berkeley; Todd E. Dawson, University of California Berkeley; Rebecca L. Lewison, San Diego State University; Ian T. Warrington, University of Calgary; Justin S. Brashares, University of California Berkeley

11:00 AM **An innovative method for estimating soil retention at a continental scale.**
Peter A. Cada, Tetra Tech, Inc.; Megan H. Mehaffey, US Environmental Protection Agency, Office of Research and Development; Anne C. Neale, US Environmental Protection Agency, Office of Research and Development

11:20 AM **Ecological risk assessment of landslide disasters in southwest mountainous area: A case study in Dali Bai Autonomous Prefecture.**
Yue Yue Du, Peking University; Jian Peng, Peking University; Shi Quan Zhao, The Chinese University of Hong Kong; Hu Zhi Chao, Beijing University of Technology; Yang Lin Wang, Beijing University of Technology

11:40 AM **Spatial variation in environmental impacts of wood pellet production in the south-eastern United States.**
Anna S. Duden, Floor Van Der Hilst, Pita A. Verweij, Martin Junginger – Utrecht University

Remote Sensing

Room: Constellation D

Moderator: Petya Campbell, Joint Center for Earth Systems Technology, UMBC

10:00 AM **Seasonal changes in vegetation spectral and biophysical properties associated with vegetation function.**
Petya KE Campbell, Joint Center for Earth Systems Technology, University of Maryland Baltimore County; Fred K. Huemmrich, Joint Center for Earth Systems Technology, University of Maryland Baltimore County; Elizabeth M. Middleton, NASA Goddard Space Flight Center; Jana Albrechtova, Charles University, Czech Republic; Garik Gutman, NASA

10:20 AM **Using drones to estimate carbon storage in tropical timber plantations.**
Ethan F. Miller, Yale School of Forestry and Environmental Studies; Jonathan P. Dandois, Fearless Solutions; Matteo Detto, Smithsonian Tropical Research Institute; Jefferson S. Hall, Smithsonian Tropical Research Institute

10:40 AM **Madagascar land-cover map for a better precision in digital soil mapping.**
Nandrianina NR Ramifehiarivo, Laboratoire des Radioisotopes-University of Antananarivo; Herintsitohaina HR Razakamanarivo, Laboratoire des Radioisotopes-University of Antananarivo; Frédérique FS Seyler, UMR Espace-Dev, Institut de Recherche pour le Développement; Michel MB Brossard, UMR Eco&Sols- Institut de Recherche Pour le Développement; Tantely TR Razafimbelo, Laboratoire des Radioisotopes-University of Antananarivo; Franck FR Razafindrabe, FTM, Madagascar; Hery RH Razafimahatratra, Ecole Supérieure des Sciences Agronomiques; Andriambolantsoa AR Rasolohery, Conservation International-Madagascar; Eleneide ES Sotta, UMR Espace-Dev, Institut de Recherche pour le Développement; Mamy MR Ravalontsalama, UMR Espace-Dev, Institut de Recherche pour le Développement

11:00 AM **Mapping tree plantations: How much recent tropical forest regrowth in Costa Rica is natural forest?**
Matthew E. Fagan, University of Maryland Baltimore County; Do-Hyung Kim, University of Maryland College Park

11:20 AM **Canopy structure and distribution of vegetation in Great Smoky Mountain National Park.**
Jitendra Kumar, Oak Ridge National Laboratory; William W. Hargrove, USDA Forest Service; Steven P. Norman, USDA Forest Service; Forrest M. Hoffman, Oak Ridge National Laboratory

TECHNICAL SESSIONS - WEDNESDAY, APRIL 12

Species Distribution Modeling

Room: Constellation E

Moderator: Tom Edwards, U.S. Geological Survey

10:00 AM **Rare plants conservation and non-renewable energy development in the Colorado Plateau of western North America: Can landscape–scale models actually help?**
Thomas C. Edwards, US Geological Survey/Utah State University; Robert D. Fitts, Utah Natural Heritage Program; Chris Keleher, Utah Department of Natural Resources; Jacob R. Gibson, Utah State University; Edd Hammill, Utah State University

10:20 AM **Mitigating adverse effects of human disturbance on Golden eagles, *Aquila chrysaetos* using an individual-based modelling approach.**
Laura E. D'Acunto, Purdue University; Robert Spaul, Boise State University; Julie Heath, Boise State University; Patrick A Zollner, Purdue University

10:40 AM **Niche modeling of eastern US monarch migration overnight roosting and monarch roadkill mortality in Texas.**
James L. Tracy, Tuula Kantola, Robert N. Coulson – Knowledge Engineering Laboratory, Department of Entomology, Texas A&M University

11:00 AM **The future of southern periphery Canada lynx, Lynx canadensis: Regional transboundary habitat projections for Washington State lynx populations.**
Tessia O. Robbins, University of Washington; Donald Mckenzie, University of Washington

11:20 AM **A nested polygon grid to summarize environmental data for habitat modeling.**
Matthew P. Peters, Louis R. Iverson, Steve N. Matthews, Anantha M. Prasad – USDA Forest Service Northern Research Station

11:40 AM **Model comparison for the distribution of the amphibian chytrid fungus.**
Melanie L. Torres, Howard H. Whiteman, Kate He – Murray State University

Coastal

Room: Constellation F

Moderator: Sara Zeigler, U.S. Geological Survey

10:00 AM **Detecting coastal vegetation responses to sea level rise from multi-temporal LiDAR and optical data integration.**
Lindsey S. Smart, North Carolina State University; Paul J. Taillie, North Carolina State University; Helena Mitasova, North Carolina State University; Jennifer J. Swenson, Duke University; Benjamin Poulter, NASA Goddard Space Flight Center; Jordan W. Smith, Utah State University; Ross K. Meentemeyer, North Carolina State University

10:20 AM **Thresholds of sea-level rise for coastal wetlands.**
Wei Wu, The University of Southern Mississippi; Matthew Bethel, Louisiana Sea Grant; Patrick D. Biber, The University of Southern Mississippi

10:40 AM **Land use and salinity control abundance and composition of Chesapeake Bay submerged aquatic vegetation, SAV communities.**
Donald E. Weller, Smithsonian Environmental Research Center; Christopher J. Patrick, Texas A&M University Corpus Christi; Robert J. Orth, Virginia Institute of Marine Science; David E. Wilcox, Virginia Institute of Marine Science; Michael P. Hannam, Smithsonian Environmental Research Center

11:00 AM **Quantification of early successional breeding habitat for shorebirds following Hurricane Sandy.**
Sara L. Zeigler, Edward R. Thieler, Benjamin T. Guttierez, Nathaniel G. Plant, Emily Sturdivant – US Geological Survey; James D. Fraser, Daniel H. Catlin, Sarah M. Karpanty – Virginia Tech

11:20 AM **HIGHER GROUND: Leveraging Baltimore's topography to increase social and climate resiliency.**
Katie M. O'Meara, Maryland Institute College of Art; Benjamin Zaitchik, Johns Hopkins University; Celso Ferreira, George Mason University; Esther Kim, Maryland Institute College of Art; Selina J. Sumi, George Mason University

TECHNICAL SESSIONS - WEDNESDAY, APRIL 12

S9. Modelling Patterns and Processes of Land Use and Land Cover Change with Dinamica EGO

Room: Annapolis

Moderator: Gillian Galford, University of Vermont

10:00 AM **Vegetative productivity responses to a national agricultural inputs subsidy.**
Gillian L. Galford, University of Vermont; Laura J. Sonter, University of Vermont; Greg Fiske, Woods Hole Research Center; Hope Michelson, University of Illinois at Urbana-Champaign

10:20 AM **Pushing the envelope of spatial modeling with Dinamica EGO.**
Hermann O. Rodrigues, Universidade Federal de Minas Gerais; Britaldo S. Soares-Filho, Universidade Federal de Minas Gerais; Laura Sonter, Vermont University

10:40 AM **Patterns, predictors and projections of forest loss in New England.**
Jonathan R. Thompson, Joshua S. Plisinski, Matthew J. Duveneck – Harvard Forest

11:00 AM **Tying stakeholder feedback to land use change models and ecosystem services.**
Iara L. Lacher, Smithsonian Conservation Biology Institute; Tom Akre, VWL, Smithsonian Conservation Biology Institute; William McShea, Smithsonian Conservation Biology Institute; Jonathan Thompson, Harvard Forest

Avian

Room: Baltimore

Moderator: Lance Roberts, Point Blue Conservation Science

10:00 AM **Effects of drought and beetle-induced conifer mortality on the avian community in Sierra Nevada forests.**
Lance J. Roberts, James R. Tietz, Ryan D. Burnett – Point Blue Conservation Science

10:20 AM **Do effects of landscape-scale socioeconomic factors on avian persistence vary with regional climate?**
Anand Chaudary, Baylor University; Kevin J. Gutzwiller, Baylor University

10:40 AM **Habitat fragment shape and landscape matrix composition mediate abundance of a declining grassland songbird.**
Mark R. Herse, Kansas State University; Mike E. Estey, Habitat and Population Evaluation Team, U.S. Fish & Wildlife Service; W. Alice Boyle, Kansas State University

11:00 AM **Predicting and describing the spatial differentiation in community composition of forest birds in a managed forested landscape.**
Bryce T. Adams, Stephen N. Matthews – School of Environment and Natural Resources, The Ohio State University

11:20 AM **Complex effects of grain size and niche breadth on species distribution modeling.**
Thomas Connor, Vanessa Hull, Jianguo Liu – Michigan State University

11:40 AM **Within-season shifts in bird communities: Implications for cultural ecosystem service supply.**
Rose A. Graves, University of Wisconsin-Madison; Scott M. Pearson, Mars Hill University; Monica G. Turner, University of Wisconsin-Madison

S15. Forest for People: Understanding Landscape Change and Local Community Participation

Room: Columbia

Moderator: Harifidy Rakoto Ratsimba, School of Agronomy, ESSA-Forêts, University of Antananarivo

10:00 AM **Understanding land use change and local planning in Madagascar: Analyzing landscape resilience and the potential role of reforestation.**
Harifidy Rakoto Ratsimba, Mihajamanana Fetra Rabenilalana, Percy Yvon Rakoto, Arimino Aina Navale Ratovoson, Annick Ravaka, Deny Christian Zafindramiadana, Bruno Salomon Ramamonjisoa – School of Agronomy, ESSA-Forêts, University of Antananarivo; Jan Bogaert, Unité Biodiversité Et Paysage, Gembloux Agro-Bio Tech, Université de Liège

10:20 AM **Bayesian network-based land-use decision modeling in north-eastern Madagascar: Understanding the role of stakeholder participation.**
Ntsiva RN Andriatsitohaina, Doctoral School of Natural Resources Management and Development; Bruno Ramamonjisoa, ESSA-Forêts; Adrienne Grêt-Regamey, ETH Zurich; Enrico Celio, ETH Zurich; Zo Rabemananjara, ESSA-Forêts; Harifidy Rakoto Ratsimba, ESSA-Forêts

10:40 AM **Structured multi-stakeholder learning process for adaptive decision-making and innovative governance schemes in the Northeast of Madagascar.**
Patrick Laby, Doctoral School of Natural Resource Management and Development, University of Antananarivo; Bruno Ramamonjisoa, School of Agronomy, ESSA-Forêts, University of Antananarivo; Flurina Schneider, Centre for Development and Environment, University of Bern; Zo Rabemananjara, School of Agronomy, ESSA-Forêts, University of Antananarivo

11:00 AM **The role of stakeholder engagement in sustainable natural resources management.**
Bruno S. Ramamonjisoa, School of Agronomy, ESSA-Forêts, University of Antananarivo; Juila PG Jones, School of Environment, Natural Resources and Geography, Bangor University; Harifidy Rakoto Ratsimba, School of Agronomy, ESSA-Forêts, University of Antananarivo

11:20 AM **Participatory spatial territory modelling: An approach to design more inclusive land use planning in the humid forest of Madagascar.**
Jimmy Rakotovao, School of Agronomy, ESSA-Forêts, University of Antananarivo; Bruno Ramamonjisoa, School of Agronomy, ESSA-Forêts, University of Antananarivo; Patrick Waeber, Ecole Polytechnique Fédérale de Zurich; Ihoby Henintsoa Randriamalala, School of Agronomy, ESSA-Forêts, University of Antananarivo; Harifidy Rakoto Ratsimba, School of Agronomy, ESSA-Forêts, University of Antananarivo

S19. Connectivity Across Aquatic Networks: Impacts of Land Use and Climate Change

Room: Frederick

Moderator: Roy Weitzell, Jr., Chatham University

10:00 AM **Connectivity across aquatic networks: Impacts of urban-related stream burial on the distribution and network structure of headwater stream systems across the Potomac River Basin, USA.**
Roy E. Weitzell, Jr., Chatham University; Andrew J. Elmore, University of Maryland Center for Environmental Science

10:20 AM **Exploring the importance of catchment land use and dispersal barriers for fish and insect assemblage composition in human-dominated landscapes.**
Robert F. Smith, Lycoming College; Allison H. Roy, US Geological Survey, Massachusetts Cooperative Fish and Wildlife Research Unit

10:40 AM **Rarity in dendritic networks.**
Christopher M. Swan, University of Maryland Baltimore County; Bryan L. Brown, Virginia Tech

11:00 AM **The effect of climate variability and land-use change on surface water dynamics and habitat connectivity.**
Mirela G. Tulbure, University of New South Wales; Mark Broich, University of New South Wales

11:20 AM **Evaluation and application of landscape genetics for riverscape conservation.**
Lucas R. Nathan, University of Connecticut; Amy B. Welsh, West Virginia University; Jason C. Vokoun, University of Connecticut

WEDNESDAY 1:40 PM - 5:20 PM

S1. So, How *Do* We Link Landscape Patterns to Socio-Environmental Systems?

Room: Constellation C

Moderator: Ginger Allington, SESYNC

1:40 PM **Behavioral responses of tigers to humans on shared landscapes: Implications for human-wildlife coexistence.**
Neil H. Carter, Boise State University

2:00 PM **Pondering ponds, people, and parcels: Land management and ecosystem services in exurban landscapes.**
Amelie Y. Davis, Miami University; Andrew I. Freund, Miami University; Ryan Mendoza, California State University; Aura Muniz, University of Puerto Rico; Sarah Dumyahn, Miami University; Michelle Boone, Miami University

2:20 PM **NarcoLogic: An agent-based model for linking illicit commodity chains to land-use change in Central America.**
Nicholas R. Magliocca, National Socio-Environmental Synthesis Center; Erik A. Nielsen, Northern Arizona University; Kendra Mcsweeney, Ohio State University; Zoe Pearson, University of Wyoming; Nazih Richani, Kean University; Steven E. Sesnie, U.S. Fish & Wildlife Service; Beth Tellman, Arizona State University; David J. Wrathall, Oregon State University

2:40 PM **Spanning the knowledge-action gap to advance transdisciplinary understanding about changing landscapes and new natures in postindustrial cities and metropolitan regions of the United States.**
Laura R. Musacchio, University of Minnesota

3:00 PM **BREAK**

3:20 PM **Thermodynamics and the evolution of a city: A tale of how Chicago came to be, from biophysical and socio-economic perspectives.**
Roelof M. Boumans, Dan E. Campbell, Laura Erban, Stephen Balogh, Henry Walker, Timothy R. Gleason – US Environmental Protection Agency

3:40 PM **Change in the wildland-urban interface, 1990-2010.**
Miranda H. Mockrin, USDA Forest Service; Volker C. Radeloff, University of Wisconsin; David Helmers, University of Wisconsin; Susan I. Stewart, University of Wisconsin; Anu Kramer, University of Wisconsin

TECHNICAL SESSIONS - WEDNESDAY, APRIL 12

4:00 PM **Bridging landscape ecology and social sciences: Insights into sustaining ecosystem services in an agriculture-dominated watershed.**
Jiangxiao Qiu, University of Florida; Chloe B Wardropper, University of Wisconsin-Madison; Amber S. Mase, University of Wisconsin-Madison; Eric G. Booth, University of Wisconsin-Madison; Adena R. Rissman, University of Wisconsin-Madison

4:20 PM **Understanding urban tree canopy through the lens of historic city planning and tree planting movements.**
Lara A. Roman, USDA Forest Service; Jason P Fristensky, University of Pennsylvania; Theodore S. Eisenman, University of Massachusetts Amherst; Eric J. Greenfield, USDA Forest Service; Robert E. Lundgren, University of Pennsylvania; Chloe E. Cerwinka, University of Pennsylvania; David A. Hewitt, Wagner Free Institute of Science; Caitlin C. Welsh, University of Pennsylvania

4:40 PM **Sustainable development beyond system boundaries: Meet the needs of pandas and people.**
Fang Wang, Zhiqiang Jason Zhao, Jindong Zhang, Hongbo Yang, Jianguo Jack Liu – Michigan State University

S2. Toward a Landscape Perspective of Green Infrastructure

Room: Constellation D

Moderator: Daniel Bain

1:40 PM **Grey infrastructure legacies and neighborhood social context: Implications for green infrastructure.**
Joan I. Nassauer, University of Michigan; Yuanqiu Feng, University of Michigan

2:00 PM **Surface water in Anthropocene landscapes.**
James B. Heffernan, Duke University; Meredith K. Steele, Virginia Tech; Megan L. Fox, Duke University; Chelsea C. Clifford, Duke University

2:20 PM **Scaling up green infrastructure in residential landscapes: Lessons from northeastern Ohio.**
Anne J. Jefferson, Pedro M. Avellaneda, VK Turner, Kimberly M. Jarden, Jennifer M. Grieser – Kent State University

2:40 PM **Ecosystem service provision by urban greenspaces: Effects of land cover, land-use history, and within-land cover variability on soil-based services.**
Carly D. Ziter, University of Wisconsin-Madison; Monica G. Turner, University of Wisconsin-Madison

3:00 PM **BREAK**

3:20 PM **Effects of the spatial configuration of trees on urban heat mitigation: A comparative study.**
Weiqi Zhou, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; Jia Wang, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; Mary L Cadenasso, University of California Davis

3:40 PM **Ecosystem services in urban land use planning: Frameworks and guidance.**
Sierra C. Woodruff, Todd K. Bendor – University of North Carolina Chapel Hill

4:00 PM **Catching flows and nutrient loads with landscape scale green stormwater infrastructure.**
Kristina G. Hopkins, US Geological Survey; JV Loperfido, McAdams Company; Dianna M. Hogan, US Geological Survey; Greg B. Noe, US Geological Survey; Laura S. Craig, American Rivers

4:20 PM **Contributions of the ‘intermediate scale’ of urban green infrastructure to landscape connectivity and biodiversity.**
Emily S. Minor, University of Illinois at Chicago; J Amy Belaire, St. Edward's University; Megan Garfinkel, University of Illinois at Chicago; Alexis Smith, University of Illinois at Chicago; Elsa Anderson, University of Illinois at Chicago

4:40 PM **Connecting with green infrastructure: Ecosystem services and decisions for semiarid cities.**
Mitchell A. Pavao-Zuckerman, University of Maryland College Park; Tom Meixner, University of Arizona; Andrea Gerlak, University of Arizona; Adam Henry, University of Arizona

TECHNICAL SESSIONS - WEDNESDAY, APRIL 12

S17. Application of Landscape Genetics for Management Objectives: Analytical Challenges and Innovative Empirical Approaches

Room: Constellation E

Moderator: Stephen F. Spear, The Wilds

1:40 PM **Landscape genetics as a management tool: An introduction.**
Stephen F. Spear, The Wilds

2:00 PM **Effect of missing data and sample size on the performance of genotype-environment association methods.**
Amanda T. Xuereb, University of Toronto; Amanda Stahlke, University of Idaho, Institute for Bioinformatics and Evolutionary Studies; Mairead L. Bermingham, Institute of Genetics and Molecular Medicine, University of Edinburgh; Michael Brown, Trent University; Etsuko Nonaka, University of Helsinki; Orly Razgour, University of Southampton; Vitor Pavinato, Ohio State University; Kimberly R. Andrews, University of Idaho; Stephane Joost, Laboratory of Geographic Information Systems, Ecole Polytechnique Fédérale de Lausanne; Erin L. Landguth, University of Montana; Stéphanie Manel, Centre d'Ecologie Fonctionnelle et Evolutive; Brenna R. Forester, Duke University

2:20 PM **Neutral and adaptive process effects on species-genetic diversity relationships: What can SNP outlier loci tell us?**
Johann M. Housset, Université du Québec à Montréal; Brett M. Ford, University of British Columbia; José L. Blanco-Pastor, INRA, Centre Poitou-Charentes, France; Vera W. Pfeiffer, University of Wisconsin-Madison; Stéphanie Manel, Centre d'Ecologie Fonctionnelle et Evolutive; Angéline Bertin, University of La Serena, Chile

2:40 PM **Using genotype-environment associations to identify multilocus local adaptation.**
Brenna R. Forester, Duke University; Jesse R. Lasky, Pennsylvania State University; Helene H. Wagner, University of Toronto Mississauga; Dean L. Urban, Duke University

3:00 PM **BREAK**

3:20 PM **Assessing the efficacy of genetic distance metrics in gravity and general mixed effects models.**
Jane L. Remfert, Virginia Commonwealth University, Integrated Life Sciences PhD Program; Nathan B. Alexander, Humboldt State University; Crysta A. Gantz, Portland State University; Melanie A. Murphy, University of Wyoming

3:40 PM **Testing landscape genetic hypotheses for the Columbia Spotted Frog, Rana luteiventris under multiple sampling scenarios.**
Travis J. Seaborn, Washington State University; Samantha Hauser, University of Louisiana, Lafayette; Lauren Konrade, Wichita State University; Lisette P. Waits, University of Idaho; Caren S. Goldberg, Washington State University

4:00 PM **A riverscape genetics approach to the evaluation of multiple factors affecting the successful reintroduction of Bull Trout into the lower Pend Oreille River.**
Jameson E. Hinkle, Virginia Commonwealth University; Meryl Mims*, University of Washington; Andrew Bearlin, Seattle City Light; Jacob Burkhart, University of Missouri; Casey Day, Purdue University; Matthew Fuller, Duke University; Erin Landguth, University of Montana

4:20 PM **A riverscape genetics simulation framework to examine the effects and management implications of climate change on naturally hybridizing species.**
Hayley R. Tumas, University of Georgia; Chris B. Edge, University of Toronto; Samuel R. Gunselman, Eastern Washington University; Keren Klass, University of Toronto; Nadya R. Mamoozadeh, Virginia Institute of Marine Science; Anya N. Metcalfe, Northern Arizona University; Lucas R. Nathan, University of Connecticut; Andrew Bearlin, Seattle City Light; Marie-Josee Fortin, University of Toronto; Erin L. Landguth, University of Montana

4:40 PM **Understanding landscape variables that influence gene flow in a highly vagile species, the black-capped vireo, *Vireo atricapilla*.**
Samantha S. Hauser, Paul L. Leberg – University of Louisiana, Lafayette

5:00 PM **Landscape genetics of the foundational plant species in the irregularly flooded salt marshes of the Gulf of Mexico.**
Hayley R. Tumas, University of Georgia; Brian M. Shamblin, University of Georgia; Mark S. Woodrey, Mississippi State University; Nathan P. Nibbelink, University of Georgia; Richard B. Chandler, University of Georgia; Campbell J. Nairn, University of Georgia

S7. Microclimate Mediates Ecological Responses to a Changing Climate

Room: Constellation F

Moderator: Janet Franklin, Arizona State University

1:40 PM **From microenvironments to macroecology: An overview of the m2M project.**
Frank W. Davis, University of California Santa Barbara

2:00 PM **How important is the species' recruitment niche in mediating simulated range shifts in a dynamic, disturbance-prone landscape?**
Alexandra D. Syphard, Conservation Biology Institute; Josep M. Serra-Diaz, Harvard University; Ian D. Davies, The Australian National University; Guy F. Midgley, Stellenbosch University; Lee Hannah, Conservation International; Janet Franklin, Arizona State University; Frank W. Davis, University of California Santa Barbara; Helen M. Regan, University of California Riverside

2:20 PM **Predicting forest structure over an elevational gradient in the southern Sierra Nevada Mountains using high resolution airborne remote sensing.**
Geoffrey A. Fricker, Arizona State University; Nick Synes, Arizona State University; Josep Serra-Diaz, Harvard University; Frank Davis, University of California Santa Barbara; Janet Franklin, Arizona State University

2:40 PM **Seasonal variability in the influence of canopy and topography on microclimate temperature.**
Nicholas W. Synes, Arizona State University; Geoffrey A. Fricker, Arizona State University; Josep M. Serra-Diaz, Harvard Forest; Frank Davis, National Center for Ecological Analysis and Synthesis, University of California; Janet Franklin, Arizona State University

3:00 PM **BREAK**

3:20 PM **The phenology of a Great Smoky Mountain.**
Steven P. Norman, William W. Hargrove, William M. Christie – USDA Forest Service

3:40 PM **Do fragmented landscapes select for climate-resilient phenotypes?**
Christopher E. Latimer, University of Wisconsin-Madison; Benjamin Zuckerberg, University of Wisconsin-Madison; Sheldon J. Cooper, University of Wisconsin-Oshkosh; William H. Karasov, University of Wisconsin-Madison

4:00 PM **Scaling interactions between organisms and microclimates to predict species ranges.**
Michael W. Sears, Clemson University; Michael J. Angilletta, Arizona State University

Urban Landscapes

Room: Annapolis

Moderator: Sarah Gagné, University of North Carolina at Charlotte

1:40 PM **Testing Holling's textural-discontinuity hypothesis along an urban gradient.**
Sara A. Gagné, University of North Carolina Charlotte; Kunwar K. Singh, North Carolina State University; Lenore Fahrig, Carleton University

2:00 PM **Bee diversity in Chicago's vacant lots.**
Elsa C. Anderson, University of Illinois at Chicago; Emily S. Minor, University of Illinois at Chicago

2:20 PM **Buzzing around the city: The effect of local landscape factors on social bee occurrence in Madison, WI.**
Vera W. Pfeiffer, University of Wisconsin-Madison; Janet Silbernagel, University of Wisconsin-Madison

2:40 PM **Development-induced water demand: Effects of urban form and socio-ecological drivers.**
Georgina M. Sanchez, Center for Geospatial Analytics, North Carolina State University; Jordan W. Smith, Utah State University; Adam Terando, US Geological Survey Southeast Climate Science Center; Ge Sun, USDA Forest Service Southern Research Station; Ross K. Meentemeyer, Center for Geospatial Analytics, North Carolina State University

3:00 PM **BREAK**

3:20 PM **The role of urban green roofs as invertebrate habitat.**
Danielle K. Merritt, University of North Carolina Charlotte; Sara Gagné, University of North Carolina Charlotte

3:40 PM **The urban heat island in the developing world: Analyzing surface temperature anomalies of informal settlements.**
Jefferson A. Riera, Johns Hopkins University; Benjamin F. Zaitchik, Johns Hopkins University

4:00 PM **Planting healthier air: A landscape assessment of the potential for trees to reduce air pollution and cool cities.**
Robert I. McDonald, Timm Kroeger, Tim Boucher – The Nature Conservancy

4:20 PM **How does air quality influence urban park visits?**
Yaqiong Jiang, Ganlin Huang – Center for Human-Environment System Sustainability, Beijing Normal University

4:40 PM **How might the spillover effect of small-sized urban green space cooling behavior in a 4-dimensional scale?**
Fanhua Kong, Nanjing University, China; Haiwei Yin, Nanjing University, China

5:00 PM **Influence of landscape pattern on land surface temperature in Shenzhen City, China.**
Yanxu Liu, Peking University; Jian Peng, Peking University

S4. Land-Change Modeling Applied to Planning and Resource Management

Room: Baltimore

Moderator: Peter Claggett, U.S. Geological Survey

1:40 PM **Data for understanding and modeling urbanization in the Chesapeake Bay Watershed.**
Peter R. Claggett, David I. Donato, Frederick M. Irani, Jason Shapiro, Renee L. Thompson – US Geological Survey

2:00 PM **Comparing spatial pattern and locational accuracy of multiple land change models using consistent reference data.**
Brian R. Pickard, Ross K. Meentemeyer – Center for Geospatial Analytics, North Carolina State University

2:20 PM **Modeling suitability for urban development in the Delaware River Basin.**
Alfonso Yáñez Morillo, Scott A. Drzyzga, Claire A. Jantz, Joshua Barth, Antonia F. Price – Shippensburg University

2:40 PM **A community-driven approach to developing future land use scenarios at the river basin scale: An example from the Delaware River Basin.**
Antonia F. Price, Claire A. Jantz, Scott A. Drzyzga, Alfonso Yáñez Morillo, Dorlisa J. Minnick, Joshua T. Barth, Caitlin M. Lucas – Shippensburg University

3:00 PM **BREAK**

3:20 PM **DRB 2070: Lessons learned from basin-wide land use change forecasting.**
Claire A. Jantz, Shippensburg University; Scott A. Drzyzga, Shippensburg University; Peter Claggett, US Geological Survey; Alfonso Yáñez Morillo, Shippensburg University; Antonia F. Price, Shippensburg University; Joshua Barth, Shippensburg University; Dorlisa J. Minnick, Shippensburg University; Caitlin M. Lucas, Shippensburg University

3:40 PM **Design and implementation of a self-supervised framework linking forest management to the surrounding landscapes.**
Di Yang, University of Florida

4:00 PM **High-resolution modeling of anthropogenic land use and natural vegetation change to support conservation assessments in the Great Plains.**
Terry L. Sohl, US Geological Survey; Daniel Manier, US Geological Survey; Jordan Dornbierer, SGT Inc.; Gordon Reese, US Geological Survey; Nataha Carr, US Geological Survey

4:20 PM **Predictions of coastal vegetation change associated with sea level rise.**
Steven M. Guinn, University of Maryland Center for Environmental Science; Andrew J. Elmore, University of Maryland Center for Environmental Science; Daniel Cadol, New Mexico Institute of Mining and Technology; Katharina AM Engelhardt, University of Maryland Center for Environmental Science; Matthew C. Fitzpatrick, University of Maryland Center for Environmental Science; Geoffrey Sanders, National Park Service

4:40 PM **Ideas into code: Breaking the bottleneck in land-change modeling.**
David I. Donato, US Geological Survey

Forest Fragmentation and Change

Room: Columbia

Moderator: James Forester, University of Minnesota

1:40 PM **Confronting the habitat fragmentation zombie.**
Lenore Fahrig, Carleton University

2:00 PM **Fence-line contrast soundscape study of forested lands in Allegany State Park and Allegheny National Forest: Is there an impact of oil and gas development on an eastern forest soundscape?**
Kasey L. Osborne, Marshall University; Anne Axel, Marshall University

2:20 PM **Connecting habitat fragmentation to species diversity across scales: The case of Thousand Island Lake, China.**
Maxwell C. Wilson, School of Life Sciences, Arizona State University; Guang Hu, Zhejiang Sci-Tech University; Jianguo Wu, School of Life Sciences, Arizona State University; Mingjian Yu, College of Life Sciences & Institute of Ecology, Zhejiang University

2:40 PM **BREAK**

3:20 PM **The implications of American chestnut re-introduction on landscape dynamics and carbon storage.**
Eric J. Gustafson, USDA Forest Service Northern Research Station; Arjan MG de Bruijn, Purdue University; Nathanael I. Lichti, Purdue University; Douglass F. Jacobs, Purdue University; Brian R. Sturtevant, USDA Forest Service Northern Research Station; Jane R. Foster, University of Minnesota; Brian R. Miranda, USDA Forest Service Northern Research Station; Harmony J. Dalgleish, College of William and Mary

3:40 PM **From individual to population: Understanding the impact of changing forest landscapes on a declining moose population in northeastern Minnesota.**
James D. Forester, University of Minnesota

4:00 PM **Simulating the impact of biological control on an invasive plant by using an individual based model, JABOWA.**
Bo Zhang, University of Miami; Donald L. Deangelis, US Geological Survey; Min B. Rayamajhi, USDA Agricultural Research Service Aquatic Weed Research Laboratory; Daniel Botkin, University of California Santa Barbara

4:20 PM **The effect of local and landscape level characteristics on the seed predator-parasitoid system of black locust in east-central Europe.**
Tímea K. Lakatos, University of Debrecen, Hungary; Zoltán László, Hungarian Department of Biology and Ecology, Babeş-Bolyai University, Cluj-Napoca, Romania; Béla Tóthmérész, MTA-DE Biodiversity and Ecosystem Services Research Group, Debrecen, Hungary

4:40 PM **Integration of landscape ecology into the ecosystem service assessment of surface mining reclamation in an Appalachian forested watershed.**
Jian Yang, Kumari Gurung, Chase Clark – University of Kentucky

5:00 PM **Riparian vegetation dynamics across mountain landscapes along the River Cauvery of western Ghats, South India.**
Nagaraja C. Badenahally, Bangalore University; Sunil C, Bangalore University

Conservation Biology

Room: Frederick

Moderator: Jared Stabach, Smithsonian Conservation Biology Institute

1:40 PM **Consolidating the commons: Exurban development and land protection in the Greater Yellowstone.**
Eric D. Compas, University of Wisconsin-Whitewater

2:00 PM **Comparison of resident wildebeest movement across three landscapes with varying degrees of natural and anthropogenic disturbance.**
Jared A. Stabach, Smithsonian Conservation Biology Institute; Randall B. Boone, Colorado State University, Fort Collins; Robin S. Reid, Colorado State University, Fort Collins; Jeffrey S. Worden, Colorado State University, Fort Collins; Peter Leimgruber, Smithsonian Conservation Biology Institute

2:20 PM **Do agricultural landscapes support rare bee species?**
Rosy G. Tucker, Tina Harrison, Rachael Winfree – Rutgers, The State University of New Jersey

2:40 PM **Farmers' contributions to the conservation of tree diversity in the Groundnut Basin, Senegal.**
Antoine AS Sambou, Institut des Sciences de L'Environnement, Université Cheikh Anta DIOP de Dakar; Bienvenu Sambou, Institut des Sciences de L'Environnement, Université Cheikh Anta DIOP de Dakar; Anders Ræbild, University of Copenhagen

3:00 PM **BREAK**

3:20 PM **Living with giants: Human-elephant conflict in Myanmar.**
Christie L. Sampson, Clemson University; Peter Leimgruber, Smithsonian Conservation Biology Institute; David W. Tonkyn, Clemson University

3:40 PM **Modeling habitat suitability of chimpanzees, Pan troglodytes verus in montane rainforests.**
Maegan A. Fitzgerald, Texas A&M University

4:00 PM **Sensitivity to estimation errors in optimal landscape connectivity conservation.**
Bistra N. Dilkina, Georgia Tech; Amrita A. Gupta, Georgia Tech

4:20 PM **Bridging ecosystem services and sustainable bioenergy indicators with stakeholders.**
Virginia H. Dale, Oak Ridge National Laboratory; Keith L. Kline, Oak Ridge National Laboratory; Tom Richard, Pennsylvania State University; Douglas L. Karlen, USDA Agricultural Research Service; William W. Belden, Antares Group Inc.

4:40 PM **Landscape effects on turtle road trauma in southern Ontario.**
Nadine D. Bohner, University of Guelph; Robert C. Corry, University of Guelph; Sue Carstairs, Ontario Turtle Conservation Centre

POSTERS

Authors will be available to answer your questions and discuss their work during the Poster Session & Social on Monday from 5:30 PM - 7:00 PM in Harborview Room & Atrium.

ECOSYSTEM SERVICES	
P01	**Investigating ecosystem service provision on exurban parcels in an agroecosystem.** Andrew I. Freund, Miami University; Ryan Mendoza, California State University-Monterey Bay; Aura Muniz, University of Puerto Rico-Mayaguez; Michelle Boone, Miami University; Sarah L. Dumyahn, Miami University; Amelie Y. Davis, Miami University
P02	**Complex relationships between biodiversity and cultural ecosystem services.** Min Gon Chung, Thomas Dietz, Jianguo Liu - Center for System Integration and Sustainability, Michigan State University
P03	**Constructive conservation of historic battlefields.** Carly D. Sibilia, University of Richmond; Geoffrey Carter, The Battlefields Trust; Todd R. Lookingbill, University of Richmond
P04	**Ecological functions of urban multiple-use greenways in Raleigh, NC.** Erika Y. Chin, University of South Carolina; John A. Kupfer, University of South Carolina
P05	**CANCELLED**
SOCIO-ENVIRONMENTAL/COMMUNITY ENGAGEMENT	
P06	**Community perceptions of the impacts on biodiversity caused by eucalyptus plantations in Ubajay and La Criolla, Argentina.** Ashley R. Sanders, Northern Arizona University
P07	**A framework for identifying environmental, social, and institutional drivers of conservation action.** Matthew A. Williamson, Mark W. Schwartz, Mark N. Lubell - University of California Davis
P08	**The landscape ecology game: Using Google Earth to teach landscape ecology.** Molly K. Bahr, Carolina Friends School; Kurt H. Riitters, USDA Forest Service
P09	**Would you like fires with that? Using stakeholder-derived forest management preference maps to model landscape-level fuel reduction treatment effects on wildfire spread.** Brooke A. Cassell, Max Nielsen-Pincus, Robert M. Scheller - Portland State University
P10	**Generating an interactive map of wastewater streamflow ratios using USGS monthly gage streamflows.** Jared Goldbach Ehmer, University of Richmond; Jennifer Rapp, US Geological Survey
P11	**Resident response to roadside tree trimming and removal across an urban-rural gradient.** Danielle P. Kloster, Daniel C. Hale, Anita T. Morzillo - University of Connecticut
P12	**People, trees, and power: Human dimensions of roadside tree management to reduce power outages.** Daniel C. Hale, University of Connecticut; Anita T. Morzillo, University of Connecticut
P13	**Dynamic characterize of resilience in a metropolitan city.** Jing Fu, Shanghai Normal University; Jun Gao, Shanghai Normal University
P14	**Habitat and livelihoods: The effects of a non-native plant on grassland wildlife in a complex human-dominated environment.** Jaime J. Coon, University of Illinois at Urbana-Champaign; James R. Miller, University of Illinois at Urbana-Champaign

POSTERS

P15	**Collaborative decision making with tangible geospatial models: a case study of invasive disease management.** Devon A. Gaydos, Ross K. Meentemeyer - Center for Geospatial Analytics, North Carolina State University
P16	**Prioritizing locations for managing emerging forest disease.** Anna V. Klevtcova, Devon A. Gaydos, Vaclav Petras, Ross K. Meentemeyer -Center for Geospatial Analytics, North Carolina State University
FORESTED LANDSCAPES/DISTURBANCE	
P17	**Modeling landscape level spread and impact of Sudden Oak Death on the natural fire regime in Big Sur, CA.** Chris M. Jones, University of North Carolina Chapel Hill; Ross K. Meentemeyer, North Carolina State University; Aaron Moody, University of North Carolina Chapel Hill; Francesco Tonini, Michigan State University
P18	**Modelling and mapping post-fire black spruce regeneration in a context of global change in eastern Canada.** Yan G. Boucher, Ministère des Forêts, de la Faune et des Parcs du Québec; Richard A. Fournier, Université Sherbrooke; François Girard, Université de Montréal; Osvaldo Valeria, Université du Québec en Abitibi-Témiscamingue
P19	**Determining the growth response of Quercus rubra along elevational and exposure gradients.** Sierra N. Hoffman, Amaris S. Jalil, Mark R. Lesser - Shepherd University
P20	**Climate change on the forests of the Klamath-Siskiyous and potential management strategies.** Charles J. Maxwell, Portland State University; Rob M. Scheller, Portland State University; Joseph M. Serra-Diaz, Harvard University; Jonathan R. Thompson, Harvard Forest; Thomas A. Spies, USFS PNWRS
P21	**The extreme 2016 fall wildfire season of the southern Appalachians.** Steven P. Norman, Danny C. Lee, William W. Hargrove - USDA Forest Service
P22	**Utilizing NASA Earth Observations to quantify landscape disturbances related to a changing climate in Glacier National Park from 1999-2016.** Sunita Yadav, Jordan Lubbers, Ryan Avery, Suzanne Richards, Zachary Wardle, Kenton Ross - NASA DEVELOP
P23	**How do land cover, elevation, and climate drive variability in start of season phenology in the Inland Northwest?** Jenna E. Morris, Whitworth University; Grant M. Casady, Whitworth University
LANDSCAPE CHANGE	
P24	**Recent grassland dynamics in the US Northern Great Plains viewed through land surface phenology.** Lan H. Nguyen, Cole P. Krehbiel, Geoffrey M. Henebry - South Dakota State University
P25	**Land use and land cover change in the Crown of the Continent Ecosystem, Montana, USA (1992-2011).** Amanda P. Michaels, North Carolina State University
P26	**Changes in greenspace heterogeneity in pan-Pacific cities from 1984 to 2012.** Jiali Jin, Yuhao Lu, Sarah E. Gergel, Nicholas C. Coops - University of British Columbia
P27	**Loss of wetlands in a Chesapeake Bay salt marsh.** Connor L. Geraghty, University of Richmond; Todd R. Lookingbill, University of Richmond; Katia Engelhardt, University of Maryland Center for Environmental Science

POSTERS

REMOTE SENSING/MAPPING	
P28	**Detecting change amidst uncertainty in digital elevation models: A comparison of SRTM and ASTER DEM products for two oblasts in the Kyrgyz Republic.** Kamilya Kelgenbaeva, Geospatial Sciences Center of Excellence, South Dakota State University; Geoffrey M. Henebry, South Dakota State University
P29	**Validation and Intercomparison of Global Land Cover Products in South Central and Eastern Europe.** Jana J. Albrechtova, Charles University, Czech Republic; Ioannis Manakos, Information Technologies Institute, Centre for Research and Technology Hellas, Thessaloniki, Greece; Petya KE Campbell, Joint Center for Earth Systems Technology, University of Maryland Baltimore County; Mihai Nita, University of Transylvania, Brasov, Romania; Lucie Kupkova, Charles University, Czech Republic; Konstantinos Karantzalos, Remote Sensing Laboratory, National Technical University of Athens; Garik Gutman, NASA
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P31	**Using very high spatial resolution imagery and an object-oriented paradigm for predicting above-ground biomass in heterogeneous vegetation landscape in Togo, West Africa.** Hodabalo Pereki, University of Lome, Laboratory of Botany and Plant Ecology; Kperkouma Wala, University of Lome, Laboratory of Botany and Plant Ecology; Thomas Thiel-Clemen, Hamburg University of Applied Sciences; Fousseni Folega, University of Lome, Laboratory of Botany and Plant Ecology; Komlan Batawila, Botany and Plant Ecology; Koffi Akpagana, Botany and Plant Ecology
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P33	**CANCELLED**
LANDSCAPE PLANNING/POLICY	
P34	**Triple-value simulation modeling for the Delmarva Peninsula: Landscape change and its impact.** Matthew C. Nicholson, William Jenkins, Kelsey Hensley, Marilyn ten Brink - U.S. EPA; Eric Ruder, Industrial Economics, Inc; Robert Black, Industrial Economics, Inc; Andrea Bassi, KnowlEdge, SRL
P35	**Informing land use policy implementation through the use of landscape metrics.** William Mobley, Texas A&M University at Galveston; Josh Gunn, Texas A&M University at Galveston
LANDSCAPE ANALYSIS/TOOL DEVELOPMENT	
P36	**Modeling the extent of future storm surge inundation under two sea level rise scenarios.** Joshua T. Barth, Shippensburg University; Scott A. Drzyzga, Shippensburg University
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P38	**Toward conservation of magnolia bogs on utility rights-of-way: Enhancing imageability.** Jorah F. Reinstein, University of Maryland
P39	**Comparing proximity measurements for social contagion in care of residential landscapes in Detroit.** Lanfei Liu, Noah J. Webster, Joan I. Nassauer - University of Michigan

POSTERS

P40	**Assessment and optimization of solar radiation application in the urban forests system.** Zhiquan Zhang, Shenyang University; Xiaofei Zheng, Shenyang University
P41	**Impact of landscape configuration on soil nutrient transport.** Ranhao Sun, Chinese Academy of Sciences
SPECIES DISTRIBUTIONS/HABITAT MODELING	
P42	**A landscape scale assessment of two sub-watersheds of the Conodoguinet Creek in central Pennsylvania.** Courtney A. Papinchak, Shippensburg University
P43	**CANCELLED**
P44	**Minor modifications in agricultural landscapes for promoting biodiversity through floral provisioning.** Shereen S. Xavier, University of Georgia; Alisa W Coffin, USDA Agricultural Research Service; Dawn Olson, USDA Agricultural Research Service; Jason Schmidt, University of Georgia
P45	**Environmental factors affecting the spatial distribution and trophic interactions of arthropod communities at a bioenergy farm in the Southeastern Plains, USA.** Alisa Coffin, USDA-ARS; Dawn Olson, USDA Agricultural Research Service; Jason Schmidt, University of Georgia; Seymour Lynne, University of Georgia; Oliva Pisani, USDA Agricultural Research Service; Timothy Strickland, USDA Agricultural Research Service
P46	**Region, landscape, and host plant effects on reproduction by a mobile, multivoltine arthropod herbivore.** Dawn M. Olson, USDA Agricultural Research Service; Kristina R. Prescott, University of Minnesota; Adam R. Zeilinger, University of California Berkeley; Suqin Hou, Harvard T. H. Chan School of Public Health; Alisa W. Coffin, USDA Agricultural Research Service; Coby M. Smith, USDA Agricultural Research Service; John R. Ruberson, Kansas State University; David A. Andow, University of Minnesota
P47	**How similar are species distribution model predictions – a dissimilarity index and the level of significance, a case study on Giant Panda (Ailuropoda melanoleuca).** Qiongyu Huang, Chris H. Fleming, Benjamin S. Rob, Melissa Songer - Smithsonian Conservation Biology Institute
P48	**Multi-scale habitat selection of white-headed woodpeckers in the southern Sierra Nevada, California.** Kathryn L. Purcell, USDA Forest Service; Eric L. McGregor, USDA Forest Service/Oak Ridge Institute for Science and Education
P49	**Macrobenthic assemblage structure of sediments with environment ecological quality at the Boojagh Marine National Park, Southern Caspian Sea, Iran.** Soheil Bahrebar, Islamic Azad University, Tehran, Iran; Hossein Negarestan, North Branch, Islamic Azad Univerisy, Tehran, Iran.; Abdolvahab Maghsoudlo, Iranian National Institute for Oceanography and Atmospheric Science; Afshin Danekar, Department of Natural Resources, College of Agriculture and Natural Resources Tehran University
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P51	**When do habitat edges influence landscape connectivity?** Margaret E. Andrew, Murdoch University
P52	**Effectiveness of machine-learning in identifying trends in species-to-environment relationships in Madagascar.** Phillip M. Andrews, University of California Davis; Mark A. Spangler, University of Alaska Fairbanks; EWHALE Lab; Falk Huettmann, University of Alaska Fairbanks; EWHALE Lab

POSTERS

HUMAN / WILDLIFE TELECOUPLING	
P53	**Socioeconomic effects of wildlife reintroduction projects in multiple systems.** Jindong Zhang, Hongbo Yang, Vanessa Hull, Jianguo Liu - Center for Systems Integration and Sustainability, Michigan State University
P54	**Even at the uttermost ends of the Earth: How seabirds telecouple the Beagle Channel, Patagonia.** Andrea Raya Rey, Cristóbal J. Pizarro - Centro Austral de Investigaciones Científicas, Consejo Nacional de Investigaciones Científicas y Técnicas; Christopher B. Anderson, Instituto de Ciencias Polares, Ambiente y Recursos Naturales, Universidad Nacional de Tierra del Fuego; Falk Huettmann, University of Alaska Fairbanks
URBAN LANDSCAPES	
P55	**A species-trait analysis predicting forest bird abundance along an urbanization intensity gradient in Pennsylvania.** Grant D. Paton, University of North Carolina Charlotte; Alexandra V. Shoffner, Michigan State University; Andrew M. Wilson, Gettysburg College; Sara A. Gagne, University of North Carolina Charlotte
P56	**Soil ecosystem heterogeneity at the parcel scale: A case study of vacant lots in Baltimore.** Katalin A. Szlavecz, Johns Hopkins University; Heikki Setala, University of Helsinki-Lahti; Johan D Kotze, University of Helsinki-Lahti; Ian D. Yesilonis, USDA Forest Service; Adam Dec, Johns Hopkins University; Christian Cayon, Johns Hopkins University; Christopher M. Swan, University of Maryland Baltimore County
P57	**CANCELLED**
P58	**Predicting hotspots of waterbird diversity in an urban landscape.** Riley M. Andrade, Janet Franklin, Heather L. Bateman - Arizona State University
INVASIVE SPECIES	
P59	**Mechanisms underlying invasion dynamics of wavyleaf basketgrass (Oplismenus undulatifolius), an emerging threat to mid-Atlantic forests.** Anna D. Hakkenberg, Callyn M. Rountree-Jablin, Carrie A. Wu - University of Richmond
P60	**Evaluating restoration techniques for riparian areas: An assessment of mechanical removal methods of privet (Ligustrum japonicum & Ligustrum sinense).** Savannah M. Bryson, Christopher E Johnson, Abigail Kropf, Amy Belaire, Amy Concilio - St. Edward's University

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Ken Barton
1 Park Place, Suite 325
Annapolis, MD 21401
Email: kbarton@umces.edu

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National Capital Region I&M Program
4598 MacArthur Blvd., NW
Washington, DC 20007
Phone: 202-339-8330
Email: geoffrey_sanders@nps.gov
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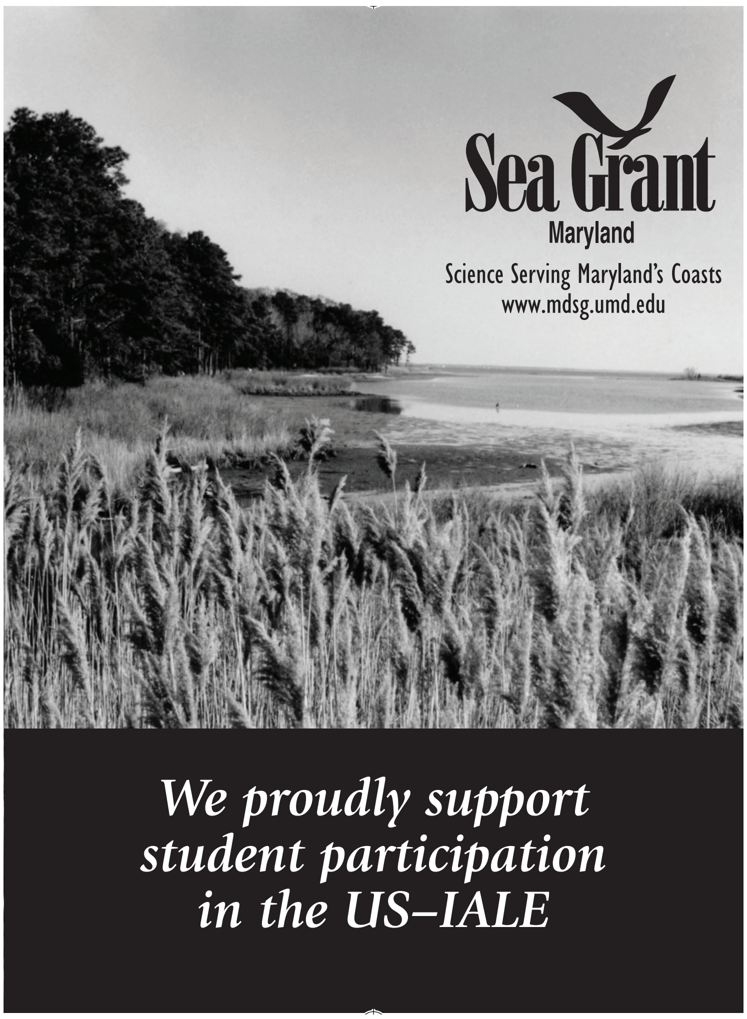

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