



## Presentations from the Long-Term Ecological Research Program



### 2015 ESA Annual Meeting, Baltimore MD

June 15 draft (for additions, email [hart3@fas.harvard.edu](mailto:hart3@fas.harvard.edu))  
 Learn more about the LTER Network at <http://lternet.edu>.

#### SATURDAY, August 8

<u>TIME</u>	<u>PLACE</u>	<u>SESSION</u>	<u>TITLE</u>
12:00-5:00pm	303	WK 9	<b>WORKSHOP (organizer: Alan Berkowitz):</b> <a href="#">Engaging K-12 Educators</a> in Teaching and Learning about Urban Ecosystems. (Multiple sites)

#### SUNDAY, August 9

<u>TIME</u>	<u>PLACE</u>	<u>SESSION</u>	<u>TITLE</u>
10:15am – 3:00pm	Meet at BCC - Charles St.	FT 11	<b>FIELD TRIP (organizer: Peter Groffman):</b> <a href="#">Long Term Ecological Research Sites</a> in Baltimore
12:00-5:00pm	307	WK 25	<b>WORKSHOP (organizer: Matthew Lau):</b> <a href="#">Ecological Network Analysis</a> (Network-wide)
12:00-5:00pm	311	WK 29	<b>WORKSHOP (organizer: Clarisse Hart):</b> <a href="#">Communicating science vividly</a> (Network-wide)

#### MONDAY, August 10

1:30 to 5:00pm	308	SYMP 2	<b>SESSION (organizer: Peter Groffman):</b> <a href="#">An Ecology IN, OF, and FOR the City</a> (Multiple sites)
	1:30pm	SYMP 2-1	<b>STEWART PICKETT:</b> <a href="#">The evolution and future of urban ecological science.</a> (Multiple sites)
	2:00pm	SYMP 2-2	<b>MORGAN GROVE:</b> <a href="#">Links between science, design and decision</a> making in urban ecology: Best practice and its future refinement. (Multiple sites)
	2:30pm	SYMP 2-3	<b>NANCY GRIMM:</b> <a href="#">Developing a concept of social-ecological-technological systems</a> to characterize resilience of urban areas and infrastructure to extreme events. (Multiple sites)
	4:10pm	SYMP 2-6	<b>EMMA ROSI-MARSHALL:</b> <a href="#">Beyond the urban stream syndrome:</a> Understanding the ecology IN, OF, and FOR sustainable urban stream ecosystems. (Multiple sites)
2:30pm	310	OOS 1-4	<b>KATALIN SZLAVECZ:</b> <a href="#">Local and global patterns of urban soil biodiversity.</a> (BES)
2:50pm	319	COS 5-5	<b>DEBRA PETERS:</b> <a href="#">Can we use the past as a lens to the future?</a> Using historic events to predict regional grassland and shrubland responses to multi-year drought or wet periods under climate change. (Multiple sites)
	345	IGN 2	<b>SESSION (organizer: Margaret Kosmala):</b> <a href="#">Going Macro:</a> Is Scaling Up All the Same? (Network-wide)
		IGN 2-2	<b>ANA DAVIDSON:</b> <a href="#">Biodiversity conservation:</a> From prairie dogs to global mammal extinction (SEV)
		IGN 2-4	<b>ELIZABETH BORER:</b> <a href="#">Metagenomics at the global scale:</a> Plant microbes across the Nutrient Network. (Multiple sites)
		IGN 2-6	<b>JOHN KOMINOSKI:</b> <a href="#">Rivers without headwaters</a> are like trees without branches:


			Integrating network-level ecological connectivity to enhance conservation. (Multiple sites)
		IGN 2-7	<b>SHARON HALL:</b> <a href="#">Are cities the same everywhere?</a> Testing homogeneity of human-dominated ecosystems at continental scales. (Multiple sites)
		IGN 2-9	<b>MAGARET KOSMALA:</b> <a href="#">Plants, canopies, landscapes:</a> Plant phenology across scales. (HFR)
3:40pm	314	OOS 2-7	<b>OMAR PEREZ-REYES:</b> <a href="#">Decapod communities</a> under the effects of hurricanes, droughts and humans in neotropical streams. (LUQ)
3:40pm	326	COS 12-7	<b>A. CAROLIN FRANK:</b> <a href="#">Temporal, spatial, and host-species variability</a> in the conifer foliar endophyte community suggests airborne transmission of nitrogen-fixing symbionts. (NWT)
4:40pm	342	OOS 10-10	<b>ADAM CLARK:</b> <a href="#">A predictive community ecology model</a> for extrapolating from field observations to novel conditions. (CDR)
Poster	Exhibit Hall	PS 10-98	<b>MATTHEW SMITH:</b> <a href="#">Belowground decomposition rate thresholds</a> and their relationship to plant community state change along a Virginia barrier island dune/swale transect. (VCR)
Poster	Exhibit Hall	PS 13-126	<b>BRIDGET DARBY:</b> <a href="#">The role of microbes in retaining soil nitrogen</a> with depth at Hubbard Brook. (HBR)
Poster	Exhibit Hall	PS 17-160	<b>AUDREY BARKER PLOTKIN:</b> <a href="#">The Harvard Forest LTERV Program:</a> Long-term trajectories and new results. (HFR)
Poster	Exhibit Hall	PS 17-161	<b>NATHAN BURRUSS:</b> <a href="#">The ecology of catastrophic events:</a> Understanding abrupt spatial transitions in susceptibility of grasslands and croplands to multi-year drought. (JRN)
Poster	Exhibit Hall	PS 18-167	<b>NATALIE BOELMAN:</b> <a href="#">Arctic breeding songbirds cope with variability</a> in the timing of spring onset. (ARC)
Poster	Exhibit Hall	PS 19-198	<b>DOROTHY STEARNS:</b> <a href="#">Effects of drought exposure on belowground productivity</a> in a desert grassland. (SEV)
4:30-6:30pm	Exhibit Hall	Social Event	<b>LTER GRADUATE STUDENT MIXER.</b> All graduate students conducting research at an LTER site welcome to attend.
8:00-10:00pm	309	SS 10	<b>SESSION (organizer: Mark Kramer):</b> <a href="#">New Frontiers: Bridging the Gaps</a> Between Continental and Global-Scale Research Networks, A Special AGU-ESA Event and Evening Social (Network-wide)

## **TUESDAY, August 11**

9:00am	325	COS 27-4	<b>CASE PRAGER:</b> <a href="#">Plant diversity effects on carbon cycling</a> in the Arctic. (ARC)
9:20am	320	COS 22-5	<b>EMILY BERNHARDT:</b> <a href="#">The forest grows but the ecosystem leaks:</a> Calcium enrichment increases both forest biomass and nitrogen export. (HBR)
9:20am	321	COS 23-5	<b>MICHAEL GOOSEFF:</b> <a href="#">Antarctic terrestrial ecosystems abide:</a> Changes in soils, lakes and streams of the McMurdo Dry Valleys as the cooling trend ends. (MCM)
10:10am	307	SYMP 4-5	<b>FOREST ISBELL:</b> <a href="#">No systematic local biodiversity loss:</a> Where, when, and relative to what baseline? (Network-wide)
10:10am	329	OOS 43-7	<b>SERITA FREY:</b> <a href="#">Effects of warming on soil microbial communities</a> and feedbacks to nitrogen and carbon fluxes in a mixed temperate forest ecosystem. (HFR)
1:30pm	301	COS 38-1	<b>JOHN KOMINOSKI:</b> <a href="#">Timing is everything:</a> Understanding short- and long-term variability in light and temperature on inter-biome freshwater ecosystem production. (FCE)
1:30pm	328	OOS 30-1	<b>ALAIN PLANTE:</b> <a href="#">Exploring relationships between microbial ecology</a> and soil organic matter stability in deep tropical soil profiles. (LUQ)
1:50pm	328	OOS 30-2	<b>PETER GROFFMAN:</b> <a href="#">Urbanization effects on nitrogen dynamics</a> in the critical zone. (BES)
1:50pm	322	COS 45-2	<b>MICHAEL HALLWORTH:</b> <a href="#">Temporal and spatial heterogeneity of avian community</a> dynamics within a forested landscape. (HBR)
2:10pm	336	OOS 31-3	<b>LISA TIEMANN:</b> <a href="#">Can we enhance soil services in agroecosystems</a> through rotational diversity? (KBS)
2:30pm	322	COS 45-4	<b>NATHAN PIERCE:</b> <a href="#">Location, location, location:</a> The influence of plant neighborhood

			configuration on grass-shrub interactions. (JRN)
2:50pm	342	OOS 34-5	<b>LINDA VAN DIEPEN:</b> <a href="#">Using soil metatranscriptomics</a> to understand fungal functioning in a changing climate. (HFR)
3:20pm	344	OOS 33-6	<b>TAD DALLAS:</b> <a href="#">Using niche modeling</a> to detect unobserved interactions in host-parasite networks. (SEV)
3:30pm	345	IGN 6-6	<b>CORINNA GRIES:</b> <a href="#">Publishing, sharing, and accessing ecological data:</a> A Long-Term Ecological Research (LTER) site's approach. (Network-wide)
4:00pm	328	OOS 30-8	<b>WENDY YANG:</b> <a href="#">Controls on potential iron reduction in soils</a> from diverse ecosystems. (SEV, LUQ)
Poster	Exhibit Hall	OPS 3	<b>POSTER SESSION (organizer: Andrew Fox):</b> <a href="#">Advancing Ecological Understanding Using Network-Level Science.</a> (Multiple sites)
Poster	Exhibit Hall	OPS 4	<b>POSTER SESSION (organizer: Jonathan Dandois):</b> <a href="#">Drones for Ecology:</a> New Sampling Tools for Personal Remote Sensing of Ecosystems. (Multiple sites)
Poster	Exhibit Hall	PS 23-23	<b>JUAN ALVIREZ-YEPIZ:</b> <a href="#">Visible and invisible effects of Hurricane Jova</a> in a tropical dry forest ecosystem in western Mexico. (iLTER)
Poster	Exhibit Hall	PS 26-70	<b>J. AARON HOGAN:</b> <a href="#">Revisiting the interaction of land use and the environment</a> in a Puerto Rican subtropical wet forest. (LUQ)
Poster	Exhibit Hall	PS 37-156	<b>JESSICA KETTENBACH:</b> <a href="#">Willow shrub density affects pollination</a> of alpine forbs differentially and nonlinearly. (NWT)

### WEDNESDAY, August 12

8:40am	318	COS 60-3	<b>PATRICK SORENSEN:</b> <a href="#">Increased freeze-thaw cycles in winter</a> partially offsets stimulatory effects of growing season soil warming on microbial activity in northern hardwood forests. (HBR)
9:00am	319	COS 61-4	<b>JOHANNES ROUSK:</b> <a href="#">Fungal-to-bacterial dominance of soil food-webs</a> in a changing world: Consequences for the priming effect and resource-use efficiency. (HFR)
9:50am	319	COS 61-6	<b>MICHAEL ABRAHA:</b> <a href="#">Water use efficiency of annual corn</a> and perennial grasses. (KBS)
10:10am	303	COS 59-7	<b>NICOLE MILLER-STRUTTMANN:</b> <a href="#">When attention deficit pays:</a> Bumble bee foraging breadth expands to compensate for declining flower resources under climate change. (NWT)
11:10am	319	COS 61-10	<b>ALLISON VEACH:</b> <a href="#">Historical precipitation regime and drying-rewetting interval</a> alters grassland soil microbial community dynamics. (KNZ)
1:30 to 5:00pm	317	OOS 50	<b>SESSION (organizer: Anita Guerrini):</b> <a href="#">History and Its Uses</a> in the NSF Long-Term Ecological Research Network (Multiple sites)
	1:30pm	OOS 50-1	<b>ANITA GUERRINI:</b> <a href="#">Ecological histories:</a> Contrasting uses of history at two LTER sites. (AND, SBC)
	1:50pm	OOS 50-2	<b>ADRIAN HOWKINS:</b> <a href="#">Ecological research in the McMurdo Dry Valleys,</a> Antarctica during the 1960s. (MCM)
	2:30pm	OOS 50-4	<b>DAVID FOSTER:</b> <a href="#">Harvard Forest LTER program:</a> The role of historical studies in ecological research and conservation planning. (HFR)
	2:50pm	OOS 50-5	<b>GINA RUMORE:</b> <a href="#">An oak tree conundrum:</a> Field research versus big data in the history of American ecology. (Network-wide)
	3:20pm	OOS 50-6	<b>TED GRAGSON:</b> <a href="#">Evolution of ideas and team science</a> at the Coweeta LTER. (CWT)
	3:40pm	OOS 50-7	<b>SAMUEL SCHMIEDING:</b> <a href="#">Untangling the tangled bank:</a> Locating, preserving and interpreting the archival history of the H.J. Andrews Experimental Forest. (AND)
	4:00PM	OOS 50-8	<b>DIANE McKNIGHT:</b> <a href="#">The uses of history for ecological research:</a> A scientist's perspective on contributions from the heroic age of Antarctic exploration. (MCM)
1:30pm	314	OOS 47-1	<b>CHRISTINE ROLLINSON:</b> <a href="#">Drivers of ecosystem variability across temporal scales:</a> Insights from a multi-model comparison of forest dynamics for the past millennium. (Multiple sites)
2:10pm	303	COS 78-3	<b>GARY LOVETT:</b> <a href="#">Does de-acidification affect forest floor carbon dynamics?</a> (HBR)
2:30pm	315	OOS 48-4	<b>MARTHA MATHER:</b> <a href="#">Trade-offs between site fidelity and local dispersal</a> create

			heterogeneity in consumer-mediated habitat linkages in a disturbed seascape. (PIE)
3:20pm	319	COS 80-6	<b>ERIC SOKOL:</b> <a href="#">A simulation-based approach</a> to understand how metacommunity characteristics influence emergent biodiversity patterns. (Multiple sites)
Poster	Exhibit Hall	OPS 5-12	<b>RYLAND TAYLOR:</b> <a href="#">Confluence network dynamics</a> can create a spatial mosaic of predator interactions. (PIE)
Poster	Exhibit Hall	PS 45-48	<b>JULEA SHAW:</b> <a href="#">Patterns of surface rock cover</a> and implications for plant, water, and nutrient dynamics at long-term ecological research sites in Phoenix, AZ. (CAP)
Poster	Exhibit Hall	PS 48-83	<b>DAVID ORWIG:</b> <a href="#">Initial census, composition, and spatial patterns</a> within the 35 ha ForestGEO Plot at Harvard Forest. (HFR)
Poster	Exhibit Hall	PS 49-90	<b>ELIZABETH HEDRICK:</b> <a href="#">Recording on the fly</a> : Can acoustic monitoring track bumble bees ( <i>Bombus</i> spp.) in remote habitats?
Social Event	TBD	Social Event	<b>HARVARD FOREST SOCIAL:</b> Past and present researchers, students, and friends of the Harvard Forest are welcome to attend.

### THURSDAY, August 13

8:00am	318	COS 98-1	<b>REBECCA SANDERS-DeMOTT:</b> <a href="#">Effects of warmer temperatures</a> and a smaller winter snowpack on nitrogen retention in a northern hardwood forest. (HBR)
8:00am	341	OOS 68-1	<b>DAWN BROWNING:</b> <a href="#">Unraveling the mystery of dryland plant phenology</a> through time and space with multi-scale remote sensing. (JRN)
9:20am	303	COS 97-5	<b>PAMELA TEMPLER:</b> <a href="#">Effects of warmer growing season temperatures</a> and a reduced winter snowpack on water and carbon uptake in a northern hardwood forest. (HBR)
10:30am	303	COS 97-8	<b>GRACE POLD:</b> <a href="#">Forest soil metagenomes</a> demonstrate chronic soil warming induces changes in microbial functional potential. (HFR)
1:30 to 5:00pm	314	OOS 71	<b>SESSION (organizer: Valerie Eviner):</b> <a href="#">The Role of Long-Term Studies</a> in Advancing Ecological Understanding (Network-wide)
	↳ 2:10pm	OOS 71-3	<b>CHARLES DRISCOLL:</b> <a href="#">Effects of changing atmospheric deposition</a> on the structure and function of the Northern Forest: Long-term measurements, experiments and future model projections from the Hubbard Brook Experimental Forest, New Hampshire, USA. (HBR)
	↳ 2:50pm	OOS 71-5	<b>ALAN KNAPP:</b> <a href="#">Long-term research and the future of grassland ecosystems</a> : What have we learned? (KNZ)
	↳ 3:20pm	OOS 71-6	<b>SUMANTA BAGCHI:</b> <a href="#">Distinguishing linear, nonlinear, transient and persistent vegetation dynamics</a> to characterize empirical signatures of ecological resilience. (Multiple sites)
1:30-3:00pm	345	IGN 14	<b>SESSION (organizer: Jianwu Tang):</b> <a href="#">Effects of Evolutionary Processes</a> on Ecosystem Biogeochemical Cycles: Integration of Evolutionary Biology and Ecosystem Science (Multiple sites)
	↳	IGN 14-2	<b>JACQUELINE MOHAN:</b> <a href="#">Forests of the future</a> : From Harvard Forest to Costa Rican cloud forests, the eco-evo role of mycorrhizae for determining ecosystem responses to climate warming. (Multiple sites)
		IGN 14-3	<b>NED FETCHER:</b> <a href="#">Local adaptation and the response of Arctic tundra</a> to climate change.
		IGN 14-4	<b>JIANWU TANG:</b> <a href="#">Why does forest growth decline with age?</a> (HFR)
		IGN 14-6	<b>PETER GROFFMAN:</b> <a href="#">Plants rule, microbes drool</a> : Evolution and response of biogeochemical cycles to global environmental change.
		IGN 14-7	<b>EDWARD RASTETTER:</b> <a href="#">Reuniting community ecology</a> , ecosystem biogeochemistry, and ethology.
3:30 to 5:00pm	345	IGN 15	<b>SESSION (organizer: Evelyn Gaiser):</b> <a href="#">Understanding of the Dynamics and Controls of Primary Productivity</a> in a Changing World (Network-wide)
	↳	IGN 15-1	<b>AUDREY BARKER PLOTKIN:</b> <a href="#">Long-term dynamics and controls of forest productivity</a> in the northeastern USA. (HFR)
		IGN 15-2	<b>DIANE McKNIGHT:</b> <a href="#">More summer, more nitrogen and thinner ice</a> : Long-term trends in summertime phytoplankton abundance in an alpine lake in the Colorado Rocky Mountains. (NWT)

		IGN 15-3	<b>JOHN PRISCU:</b> <a href="#">Long term trends in phytoplankton productivity</a> in McMurdo Dry Valley (Antarctica) lakes. (MCM)
		IGN 15-4	<b>ERIC SEABLOOM:</b> <a href="#">Food webs control the strength</a> of diversity-productivity relationships. (CDR)
		IGN 15-5	<b>EMILY STANLEY:</b> <a href="#">Long-term trends in lake metabolism</a> : Heterogeneity and variance. (NTL)
		IGN 15-6	<b>LAUREN HALLETT:</b> <a href="#">Compensatory dynamics in nature</a> : A stabilizing role for interspecific competition. (NWT)
		IGN 15-7	<b>TIFFANY TROXLER:</b> <a href="#">C cycling, landscape disturbances and water management</a> : Views through the marsh grass lens. (FCE)
1:30pm	340	OOS 80-1	<b>AARON ELLISON:</b> <a href="#">The emergence of ecology</a> and the challenges of modernism. (HFR)
3:20pm	336	OOS 78-6	<b>ERIN CONLISK:</b> <a href="#">Projecting changes in subalpine tree populations</a> with warming across an elevation gradient. (NWT)
4:20pm	302	COS 115-9	<b>SUZANNE THOMAS:</b> <a href="#">"Push-pull" assays in the field</a> reveal coupled sulfur, nitrogen, and carbon cycling in salt marsh sediment. (PIE)
Poster	Exhibit Hall	PS 62-31	<b>DAVID RICHARDSON:</b> <a href="#">Environmental data-driven inquiry</a> and exploration (Project EDDIE): A model to engage students in quantitative reasoning and scientific discourse. (Multiple sites)
Poster	Exhibit Hall	PS 63-37	<b>MANISHA PATEL:</b> <a href="#">Ten years of student gains from undergraduate research</a> at the Harvard Forest Summer Research Program in Ecology. (HFR)
Poster	Exhibit Hall	PS 72-116	<b>PETYA CAMPBELL:</b> <a href="#">EO-1 Hyperion reflectance time series</a> tracing the seasonal dynamics in vegetation bio-physical parameters. (Multiple sites)
8:00 to 10:00pm	314	SS 26	<b>SESSION (organizer: Marissa Weiss):</b> <a href="#">Using Science-Policy Integration to Improve Ecosystem Science</a> and Inform Decision-Making: Lessons from U.S. LTERs. (Multiple sites)

## FRIDAY, August 14

8:00 to 11:30am	317	OOS 86	<b>SESSION (organizer: Benjamin Wilson):</b> <a href="#">Coastal Wetlands in a Changing World</a> : Drivers of Carbon Storage and Loss (Multiple sites)
	↳	8:00am	OOS 86-1 <b>JAMES MORRIS:</b> <a href="#">Refining estimates of salt marsh carbon sequestration</a> and its dependencies. (PIE)
		8:40am	OOS 86-3 <b>STEVEN PENNINGS:</b> <a href="#">Vegetation regime shift in coastal wetlands</a> affects trapping of wrack subsidies from subtidal habitats. (GCE)
		9:20am	OOS 86-5 <b>TIFFANY TROXLER:</b> <a href="#">The effects of projected sea-level rise</a> on Everglades coastal ecosystems: Evaluating the potential for and mechanisms of peat collapse. (FCE)
			OOS 86-8 <b>NATHANIEL WESTON:</b> <a href="#">Alterations to tidal marsh biogeochemical cycling</a> and greenhouse gas exchange in response to sea-level rise and salinity intrusion. (PIE)
8:00 to 11:30am	336	OOS 90	<b>SESSION (organizer: Cayelan Carey):</b> <a href="#">Cross-Scale Perspectives</a> : Integrating Long-Term and High-Frequency Data into Our Understanding of Communities and Ecosystems. (Network-wide)
	↳	8:00am	OOS 90-1 <b>SCOTT COLLINS:</b> <a href="#">Measuring the impacts of climate variability</a> on desert plant communities with in situ sensor networks. (SEV, SGS)
		8:20am	OOS 86-2 <b>KIMBERLY LaPIERRE:</b> <a href="#">Patterns of convergence and divergence</a> : A meta-analysis of the variability of community responses to global change drivers. (Multiple sites)
		8:40am	OOS 90-3 <b>JACKSON WEBSTER:</b> <a href="#">Long-term data reveals a regime shift</a> in watershed nitrogen export. (CWT)
		9:20am	OOS 90-5 <b>PAUL HANSON:</b> <a href="#">Seasonal lake metabolism</a> and its consequences for long-term organic carbon cycling in lakes. (NTL)
		9:40am	OOS 90-6 <b>STEPHEN CARPENTER:</b> <a href="#">Whole-ecosystem test of early warnings</a> for cyanobacteria blooms. (NTL)
8:00am	317	OOS 86-1	<b>JAMES MORRIS:</b> <a href="#">Refining estimates of salt marsh carbon sequestration</a> and its

			dependencies. (PIE)
8:40am	336	OOS 90-3	<b>JACKSON WEBSTER:</b> <a href="#">Long-term data reveals a regime shift</a> in watershed nitrogen export. (CWT)
9:00am	320	COS 138-4	<b>MELISSA McCORMICK:</b> <a href="#">Loss of <i>Spartina alterniflora</i> genetic diversity</a> associated with marsh bank fragmentation after long-term fertilization. (PIE)
9:50am	328	OOS 88-6	<b>RODRIGO VARGAS:</b> <a href="#">Changes in precipitation intensity and frequency</a> influence carbon dynamics in an arid grassland: Results from a multiannual experiment. (SEV)
9:50am	318	COS 136-6	<b>ELLEN WELTI:</b> <a href="#">Changes in grassland plant-pollinator community structure</a> with management and scale. (KNZ)
10:10am	328	OOS 88-7	<b>NEIL PEDERSON:</b> <a href="#">Evidence of synchronous extreme disturbance</a> at regional to subcontinental scales in a largely asynchronous system. (HFR)
10:30am	316	OOS 85-8	<b>ELIZABETH BORER:</b> <a href="#">Turnover of endophytic microbial communities</a> under environmental change. (CDR)
10:30am	326	COS 144-8	<b>ELIZABETH LANDIS:</b> <a href="#">Sustained effects of chronic N addition</a> on the capacity of fungi to degrade lignin. (HFR)
Poster	Exhibit Hall	PS 88-86	<b>MATTHEW LAU:</b> <a href="#">Temporal scales of coupled ecosystem processes</a> provide a benchmark for alternate ecosystem states: Photosynthesis and decomposition in a model micro-ecosystem. (HFR)
Poster	Exhibit Hall	PS 92-116	<b>RAKESH MINOCHA:</b> <a href="#">Long-term trends of changes in pine and oak nitrogen</a> metabolism (foliar and sapwood) in response to chronic nitrogen amendments at the harvard forest, MA. (HFR)
Poster	Exhibit Hall	PS 107-274	<b>JULIE RIPPLINGER:</b> <a href="#">Ecology of foreclosure:</a> Post-recession vegetation characteristics of urban landscapes. (CAP)

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