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News Release 17-113

## NSF-funded scientists to present on long-term ecological research findings at AGU fall meeting

Reports on results of hurricane experiments; resiliency of arctic ecosystems; factors influencing drought



A salt marsh die-off on Sapelo Island at NSF's Georgia Coastal Ecosystems LTER site.

[Credit and Larger Version \(/news/news\\_images.jsp?cntn\\_id=243731&org=NSF\)](/news/news_images.jsp?cntn_id=243731&org=NSF)

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**November 20, 2017**

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Find related stories on NSF's [Long-Term Ecological Research Program at this link <https://www.nsf.gov/news/newsmedia/ENV-discoveries/LTER-discovery-series.jsp>](#).

Hurricanes Harvey, Irma and Maria this fall. Wildfires that raged across California and British Columbia this summer. Unseasonable cold snaps in South Florida in past winters. How do such events shape and re-shape ecosystems?

And how do events from past decades affect the ways in which today's oceans, coasts, forests and fields function?

Scientists conducting studies at the National Science Foundation's (NSF) 28 Long-Term Ecological Research (LTER) sites are working to understand ecosystem processes that play out over varying timescales.

At the [2017 American Geophysical Union \(AGU\) Fall Meeting](https://www.nsf.gov/cgi-bin/good-bye?https://fallmeeting.agu.org/2017/), held at the New Orleans Ernest N. Morial Convention Center in New Orleans, Louisiana, from Dec. 11-15, 2017, dozens of LTER researchers will discuss new results on a range of topics, from how ecosystems recover from hurricanes and droughts to the resiliency of arctic ecosystems.

Highlights of LTER research being presented at the AGU Fall Meeting include:

- An all-day look at research on arctic ecosystems.
- Geoscience research and why it matters to everyone.
- Results of hurricane and drought experiments.
- New uses of remote sensing to detect the health of undersea kelp forests.
- Assessing the potential for the inland migration of salt marshes.
- How wind and water erosion will change drylands in the future.
- Time dependence of aerosol light scattering downwind of forest fires.
- Snowpack cold content and snowmelt timing and rate.

Find a list of LTER-related sessions, talks (in bold) and posters by day below.

### Monday, Dec. 11, 2017

#### Session [B11J \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31855\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31855):

**The resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change I**

8:00-10:00 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

#### [IN11F-07 \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/208721\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/208721):

**The Environmental Data Initiative data repository: Trustworthy practices that foster preservation, fitness, and reuse for environmental and ecological data**

9:05-9:15 - New Orleans Ernest N. Morial Convention Center, rooms 231-232

#### [GC12B-01 \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/235814\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/235814):

**Utilizing Landsat 8 to measure kelp physiological health in the Santa Barbara Channel**

10:20-10:35 - New Orleans Ernest N. Morial Convention Center, rooms 265-266

#### Session [B12C \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31849\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31849):

**The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change II**

10:20-12:20 - New Orleans Ernest N. Morial Convention Center, rooms 356-358

#### [B12C-01 \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/214798\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/214798):

**Assessing Effects of Climate Change on Access to Ecosystem Services in Rural Alaska: Enhancing the Science through Community Engagement**

10:20-10:35 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[I \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/245518\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/245518)  
[N12B-04 \(/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/245518\)](https://www.nsf.gov/cgi-bin/good-bye?https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/245518):  
**The Environmental Data Initiative: A broad-use data repository for environmental**

**and ecological data that strives to balance data quality and ease of submission**

11:05-11:20 - New Orleans Ernest N. Morial Convention Center, rooms 231-232

[GC12B-07 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/281558>): **Ghost forest creation and the conversion of uplands to wetlands**

11:50-12:05 - New Orleans Ernest N. Morial Convention Center, rooms 265-266

[Session B13J \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31843>): **The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change III**

13:40-15:40 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[B13J-04 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/232324>): **Impacts of climate and insect defoliators on productivity and function of trembling aspen (*Populus tremuloides*) in Alaskan boreal forests**

14:16-14:28 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[Session B14A \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/32120>): **The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change IV**

16:00-18:00 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[B14A-01 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/263529>): **The Arctic Boreal Vulnerability Experiment (ABOVE) 2017 Airborne Campaign**

16:00-16:15 - New Orleans Ernest N. Morial Convention Center, rooms 365-357

[GC14B-01 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/293674>): **Centennial-scale human alterations, unintended natural-system responses, and event-driven mitigation within a coupled fluvial-coastal system: Lessons for collective management and long-term coastal change planning**

16:00-16:15 - New Orleans Ernest N. Morial Convention Center, rooms 265-266

[GC14C-01 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/221379>): **Solute-specific patterns and drivers of urban stream chemistry revealed by long-term monitoring in Baltimore, Maryland**

16:00-16:15 - New Orleans Ernest N. Morial Convention Center, rooms 267-268

[H14A-03 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/266522>): **The effects of drought-induced mortality on the response of surviving trees in pinon-juniper woodlands**

16:30-16:45 - New Orleans Ernest N. Morial Convention Center, rooms 295-296

[B14C-02 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/255133>): **Understanding Tropical Forest Abiotic Responses to Canopy Loss and Biomass Deposition from an Experimental Hurricane Manipulation**

16:15-16:30 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

**Morning Poster Session****08:00-12:20 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**[GC11C-0750 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/289787)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/289787>): Assessing diversity of prairie plants using remote sensing

**Afternoon Poster Session****13:40-18:00 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**[B13H-1852 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/299163)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/299163>): Representation of physiological drought at ecosystem level based on model and eddy covariance measurements

[B13F-1819 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/279422)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/279422>): Microbial C:P stoichiometry is shaped by redox conditions along an elevation gradient in humid tropical rainforests

[B13G-1824 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/260175)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/260175>): Century-scale Variations in Plant and Soil Nitrogen Pools and Isotopic Composition in Northern Hardwood Forests

**Tuesday, Dec. 12, 2017**[H21R-01 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/214773)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/214773>): **Integrating terrestrial through aquatic processing of water, carbon and nitrogen over hot, cold and lukewarm moments in mixed land use catchments**

8:00-8:15 - New Orleans Ernest N. Morial Convention Center, rooms 278-279

[H21M-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/265829)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/265829>): **Soil Surface Sealing Reverse or Promote Desertification?**

8:15-8:30 - New Orleans Ernest N. Morial Convention Center, rooms 295-296

[H21M-08 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/256145)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/256145>): **Deep Percolation in Arid Piedmont Slopes: Multiple Lines of Evidence Show How Land Use Change and Ecohydrological Properties Affect Groundwater Recharge**

9:45-10:00 - New Orleans Ernest N. Morial Convention Center, rooms 295-296

[B22C-04 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/272842)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/272842>): **Cross-Network Canopy structural complexity predicts forest canopy light absorption continental scales**

11:05-11:20 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

[EP22B-06 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/294586)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/294586>): **Assessing the Potential for Inland Migration of a Northeastern Salt Marsh**

11:35-11:50 - New Orleans Ernest N. Morial Convention Center, rooms 353-355

[U24B-07 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/225970>): **Observations and simulations of snowpack cold content and its relationship to snowmelt timing and rate**

14:21-14:24 - New Orleans Ernest N. Morial Convention Center - eLightning Area

[B23G-04 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/240707>): **Detecting Below-Ground Processes, Diversity, and Ecosystem Function in a Savanna Ecosystem Using Spectroscopy Across Different Vegetation Layers**

14:25-14:40 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

[B23G-05 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/274879>): **Remote Sensing of a Manipulated Prairie Grassland Experiment to Predict Belowground Processes**

14:40-14:55 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

[GC24B-01 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/208395>): **How will wind and water erosion change in drylands in the future?**

16:00-16:30 New Orleans Ernest N. Morial Convention Center, rooms 298-299

[B24D-03 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/262186>): **Variation in salt marsh carbon dioxide fluxes across a latitudinal gradient along the U.S. Atlantic coast**

16:30-16:45 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

### **Morning Poster Session**

**08:00-12:20 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**

[B21D-1981 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/298581>): Fostering Collaboration Across the U.S. Critical Zone Observatories Network

Session [B21F \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/25268>): The Resilience and Vulnerability of Arctic and Boreal Ecosystems to Climate Change: Posters

[B21F-2019 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/295331>): Vertebrate Herbivore Browsing on Neighboring Forage Species Increases the Growth and Dominance of Siberian Alder Across a Latitudinal Transect in Northern Alaska

[GC21F-1004 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/295637>): Combining multiple approaches and optimized data resolution for an improved understanding of stream temperature dynamics of a forested headwater basin in the Southern Appalachians

[GC21H-1034 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/286834>): Episodic Salinization of Urban Rivers: Potential Impacts on Carbon, Cation, and Nutrient Fluxes

### **Afternoon Poster Session**

**13:40-18:00 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**

[B23A-2055 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/231975)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/231975>): Aerosolization of cyanobacterial cells across ecosystem boundaries in the McMurdo Dry Valleys, Antarctica

[B23A-2057 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/242750)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/242750>): A Process-Based Transport-Distance Model of Aeolian Transport

[B23C-2073 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/241961)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/241961>): Spatially Resolved Carbon Isotope and Elemental Analyses of the Root-Rhizosphere-Soil System to Understand Below-ground Nutrient Interactions

[C23C-1228 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/289435)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/289435>): Groundwater and Thaw Legacy of a Large Paleolake in Taylor Valley, East Antarctica as Evidenced by Airborne Electromagnetic and Sedimentological Techniques

[C23C-1229 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/290708)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/290708>): Thin, Conductive Permafrost Surrounding Lake Fryxell Indicates Salts From Past Lakes, McMurdo Dry Valleys, Antarctica

[C23C-1233 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280325)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280325>): Partitioning of sublimation and evaporation from Lake Bonney using water vapor isotope and latent heat fluxes

[C23C-1234 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287332)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287332>) Moat Development and Evolution on a Perennially Ice-Covered Lake in East Antarctica

[GC23B-1061 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280196)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280196>): Spatial and temporal trends in water temperature in Virginia coastal bays

[H23E-1728 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/299026)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/299026>): Determination of Tree and Understory Water Sources and Residence Times Using Stable Isotopes in a Southern Appalachian Forest

### **Wednesday, Dec. 13, 2017**

[ED32B-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/291598)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/291598>): **Articles of Data Confederation: DataONE, the KNB, and a multitude of Metacats-- scaling interoperable data discovery and preservation from the lab to the Internet**  
10:35-10:50 - New Orleans Ernest N. Morial Convention Center, room 242

[OS32A-04 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287266)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287266>): **Tidal Wetlands and Coastal Ocean Carbon Dynamics**  
11:06-11:18 - New Orleans Ernest N. Morial Convention Center, rooms 275-277

[B32D-06 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/282909>): **Wildfire, legacy carbon combustion, and the centennial carbon balance of permafrost ecosystems**

11:35-11:50 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

**Session** [H33O \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/34241>): **Water, Energy, and Society in Urban Systems I**

13:40-15:40 - New Orleans Ernest N. Morial Convention Center, rooms 293-294

**Session** [H34H \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/34235>): **Water, Energy, and Society in Urban Systems II**

16:00-18:00 - New Orleans Ernest N. Morial Convention Center, rooms 293-294

### **Morning Poster Session**

**08:00-12:20 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**

[B31D-2030 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/301053>): Evaluating productivity-biodiversity relationship and spectral diversity in prairie grasslands under different fire management treatments using in-situ and remote sensing hyperspectral data

[B31F-2050 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/235649>): Multi-Scale Analysis of Trends in Northeastern Temperate Forest Springtime Phenology

[EP31D-1895 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/236639>): Remote Sensing of Colville River Navigability to Aid Subsistence Travel, Nuiqsut, Alaska

**Session** [H31I \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31834>): Water, Energy, and Society in Urban Systems Posters

[H31I-1626 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/258404>): Spatial and Temporal Patterns of Suspended Sediment Yields in Nested Urban Catchments

[H31I-1629 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/274805>): Monitoring Urban Stream Restoration Efforts in Relation to Flood Behavior Along Minebank Run, Towson, Maryland

[H31I-1630 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/290761>) Mitigation of Flood Hazards through Modification of Urban Channels and Floodplains

[NH31A-0209 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/267695>): Evaluation of Unmanned Aircraft System (UAS) to Monitor Forest Health Conditions in Alaska

### **Afternoon Poster Session**

**13:40-18:00 - New Orleans Ernest N. Morial Convention Center - Poster Hall D-F**

[B33C-2093 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/255758>): Dryland ecosystem responses to precipitation extremes and wildfire at a long-term rainfall manipulation experiment

[B33C-2099 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/284546>): Investigating and Modeling Ecosystem Response to an Experimental and a Natural Ice Storm

[B33C-2100 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/234144>): A Novel Ice Storm Experiment for Evaluating the Ecological Impacts of These Extreme Weather Events

[B33D-2101 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/297629>): Snapshot science: new research possibilities facilitated by spatially dense data sets in limnology

[B33D-2103 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287110>): Integrating time-series and spatial surveys to assess annual, lake-wide emissions of carbon dioxide and methane from a eutrophic lake

**Thursday, Dec. 14, 2017**

**Session** [ED41C \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/35506>): **Climate Literacy: Successes and Strategies in Youth Engagement in Building Resilience to Climate Change Impacts in Vulnerable Communities with Citizen Science**

8:00 - 10:00 - New Orleans Ernest N. Morial Convention Center, room 242

[B21K-03 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/254969>): **Environmental controls of daytime leaf carbon exchange: Implications for estimates of ecosystem fluxes in a deciduous forest**

8:30-8:45 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

[B41L-03 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/232496>): **Expanding dryland ecosystem flux datasets enable novel quantification of water availability and carbon exchange in Southwestern North America**

8:30-8:45 - New Orleans Ernest N. Morial Convention Center, rooms 388-390

[A42D-02 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/260967>): **A High Resolution Land Cover Data Product to Remove Urban Density Over-Estimation Bias for Coupled Urban-Vegetation-Atmosphere Interaction Studies**

10:35-10:50 - New Orleans Ernest N. Morial Convention Center, rooms 398-399

[PA42A-09 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/296303>): **Dirt: Integrating Scientific and Local Knowledge to Support Global Land Management** 11:00-11:05 -

New Orleans Ernest N. Morial Convention Center, rooms 255-257



[PA42A-12 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/228797>): **Geoscience research and how it matters to you: Corn, climate, and classrooms**

11:15-11:20 - New Orleans Ernest N. Morial Convention Center, rooms 255-257

[H42F-07 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/208772>): **Variability in isotopic composition of baseflow in two headwater streams of the southern Appalachians**

11:22-11:32 - New Orleans Ernest N. Morial Convention Center, rooms 280-282

[Session B43J \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/35308>): **Drivers of Vegetation Change and Impacts on Biogeochemical and Biogeophysical Processes in Arctic Tundra Ecosystems**

13:40-15:40 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[B43J-08 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/215961>): **The role of deep nitrogen and dynamic rooting profiles on vegetation dynamics and productivity in response to permafrost thaw and climate change in Arctic tundra**

15:25-15:40 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[H43O-05 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/221673>): **Long-term stream discharge and chemistry observations reveal unexpected ecosystem dynamics: Coweeta Watershed 7 clearcut manipulation**

14:40-14:55 - New Orleans Ernest N. Morial Convention Center - La Nouvelle C

[B44B-04 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/267106>): **Using NEON Data to Test and Refine Conceptual and Numerical Models of Soil Biogeochemical and Microbial Dynamics**

16:45-17:00 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[B44C-08 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Person/74158>): **Evidence of a robust relationship between solar-induced chlorophyll fluorescence and gross primary productivity across dryland ecosystems of southwestern North America**

17:45-18:00 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

### **Morning Poster Session**

**08:00-12:20 - New Orleans Ernest N. Morial Convention Center, Poster Hall D-F**

[A41A-2244 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/285915>): **Near-Simultaneous Measurement of Ground Level Carbon Dioxide and Methane Concentrations with an Open-Path Tunable Diode Laser Sensor at the Bonanza Creek Long Term Ecological Research site near Fairbanks, Alaska**

[B41D-1971 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/263306>): **Soil Organic Matter Stabilization via Mineral Interactions in Forest Soils with Varying Saturation Frequency**

[Session B41A \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31580>): Drivers of Vegetation Change and Impacts on Biogeochemical and Biogeophysical Processes in Arctic Tundra Ecosystems Posters

[B41A-1936 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/278687>): Long term fertilization, but not warming, shifts rates of ectomycorrhizal nutrient cycling in Arctic tussock tundra

[B41A-1937 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280033>): Plant, Microbiome, and Biogeochemistry: Quantifying moss-associated nitrogen fixation in Alaska

[B41C-1962 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/284053>): What Do the Numbers Say? Clarifying Our Interpretation of Carbon Use Efficiency Data from Soil

[B41C-1969 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/298327>): Different Mechanisms of Soil Microbial Response to Global Change Result in Different Outcomes in the MIMICS-CN Model

[H41C-1454 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/300649>): Analysis of streamflow distribution of non-point source nitrogen export from long-term urban-rural catchments to guide watershed management in the Chesapeake Bay watershed

[H41D-1470 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/300675>): Improving Understanding of Spatial Heterogeneity in Mountain Ecohydrology with Multispectral Unmanned Aerial Systems (UAS)

[IN41A-0029 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/207913>): Quantifying vegetation distribution and structure using high resolution drone-based structure-from-motion photogrammetry

**Afternoon Poster Session**

**13:40-18:00 - New Orleans Ernest N. Morial Convention Center, Poster Hall D-F**

[A43E-2505 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/266615>): Time Dependence of Aerosol Light Scattering Downwind of Forest Fires

[B43C-2145 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/253144>): Stochastic spatio-temporal model of coral cover as a function of herbivorous grazers, water quality, and coral demographics

[EP43A-1867 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/242354>): Characterizing Process-Based River and Floodplain Restoration Projects on Federal Lands in Oregon, and Assessing Catalysts and Barriers to Implementation

[H34F-1716 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/297301>): Spatial and Temporal Dynamics of Carbon Fluxes in Glacial Meltwater Streams, Antarctica

**Friday, Dec. 15, 2017**

**Session** [U51A-06 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/26425>): **Linking Research, Education, and Public Engagement in Geoscience: Leadership and Strategic Partnerships**

8:00 - 10:00 - New Orleans Ernest N. Morial Convention Center, room E2

**Session** [B51K \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/31995>): **Asymmetric Responses of Ecosystems to Changing Precipitation Regimes: Theory, Experiments, and Modeling Approaches**

8:00-10:00 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[B51K-01 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/287084>): **Asymmetry in ecosystem responses to precipitation: Theory, observation and experimentation**

8:00-8:15 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[B51K-08 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/237894>): **Asymmetric Responses of Primary Productivity to Altered Precipitation Simulated by Land Surface Models across Three Long-term Grassland Sites**

9:45-10:00 - New Orleans Ernest N. Morial Convention Center, rooms 356-357

[B51L-01 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/283063>): **Fire Frequency and Vegetation Composition Influence Soil Nitrogen Cycling and Base Cations in an Oak Savanna Ecosystem**

8:00-8:15 - New Orleans Ernest N. Morial Convention Center, room 245

[B51N-03 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/227144>): **Estimating patterns in *Spartina alterniflora* belowground biomass within salt marshes**

8:30-8:45 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[B51L-06 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/233551>) **Soil Biogeochemical and Biophysical Footprint of Forest to Pasture Conversion in the Western Pyrenees Mountains, France**

9:15-9:30 - New Orleans Ernest N. Morial Convention Center, room 245

[PA52A-02 \(/cgi-bin/good-bye?\)](#)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/285027>): **Collaborative Projects Weaving Indigenous and Western Science, Knowledge and Perspectives in Climate Change Education**

10:34-10:50 - New Orleans Ernest N. Morial Convention Center, rooms 255-257

[B52B-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/243865)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/243865>): **Saltwater intrusion coupled with drought accelerates carbon loss from a brackish coastal wetland**

10:35-10:50 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[B53G-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/258992)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/258992>): **Long-term records reveal decoupling of nitrogen and phosphorus cycles in a large, urban lake in response to an extreme rainfall event**

13:55-14:10 - New Orleans Ernest N. Morial Convention Center, rooms 365-357

[B53H-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/263626)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/263626>): **A soil-landscape framework for understanding spatial and temporal variability in biogeochemical processes in catchments**

13:55-14:10 - New Orleans Ernest N. Morial Convention Center, rooms 386-387

[B53J-02 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/257590)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/257590>): **Subsurface soil carbon losses offset surface carbon accumulation in abandoned agricultural fields**

14:20-14:25 - New Orleans Ernest N. Morial Convention Center, rooms 383-385

[B54B-08 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280157)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280157>): **Effects of rhododendron removal on the water use of hardwood species following eastern hemlock mortality**

17:45-18:00 - New Orleans Ernest N. Morial Convention Center, rooms 388-390

### **Morning Poster Session**

**08:00-12:20 - New Orleans Ernest N. Morial Convention Center, Poster Hall D-F**

[B51B-1798 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280708)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/280708>): Drivers of spatial heterogeneity in nitrogen processing among three alpine plant communities in the Rocky Mountains

[B51F-1869 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/278380)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/278380>): Effects of nitrogen enrichment on soil organic matter in tropical forests with different ambient nutrient status

[B51G-1895 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/260248)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/260248>): Landscape-scale soil moisture heterogeneity and its influence on surface fluxes at the Jornada LTER site: Evaluating a new model parameterization for subgrid-scale soil moisture variability

[B51I-1941 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/285928)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/285928>): A Spatial-Temporal Comparison of Lake Mendota CO<sub>2</sub> Fluxes and Collection Methods

[H51F-1343 \(/cgi-bin/good-bye?\)](https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/288886)

<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/288886>): Modeling alpine grasslands with two integrated hydrologic models: a comparison of the different process representation in CATHY and GEOTop

**Afternoon Poster Session****13:40-18:00 - New Orleans Ernest N. Morial Convention Center, Poster Hall D-F**Session [ED53A \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/33493>): Climate Literacy: Successes and Strategies in Youth Engagement in Building Resilience to Climate Change Impacts in Vulnerable Communities with Citizen Science I Posters[B53B-1952 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/292251>): Comparing carbon to carbon: Organic and inorganic carbon balances across nitrogen fertilization gradients in rainfed vs. irrigated Midwest U.S. cropland[B53C-1964 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/216668>): Modeled Carbon Cycle Responses to Altered Precipitation Amount and Interannual Variation in Desert Grassland[B53D-1975 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/237264>): Modeling Nitrogen Cycling during Succession after Forest Disturbance: An Analysis of Nitrogen Mining and Retention Hypothesis[B53F-1999 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/244858>): Evaluation of forest management practices through application of a biogeochemical model, PnET-BGC[PA53A-0255 \(/cgi-bin/good-bye?\)](#)<https://agu.confex.com/agu/fm17/meetingapp.cgi/Paper/296714>): I get by with a little help from my friends: A case study in Holy Cross and Grayling using geographic, ethnographic, and biophysical data to tell the story of climate change effects in the lower-middle Yukon River region

-NSF-



Researchers are studying the giant kelp ecosystem at the NSF Santa Barbara Coastal LTER site.

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Scientists are researching ecosystem resilience in the far north at NSF's Bonanza Creek LTER site.

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Report on hurricanes at NSF's Luquillo LTER and Critical Zone Observatory sites in Puerto Rico.

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Geoscience research: why it matters. Corn, climate at NSF's Kellogg Biological Station LTER Site.

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What happens in extreme weather? A cold snap affected NSF's Florida Coastal Everglades LTER site.

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## Media Contacts

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