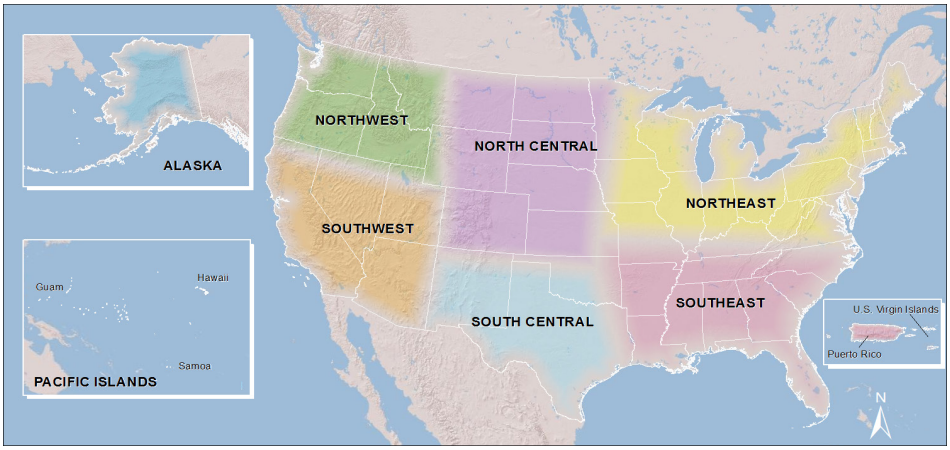
National Climate Science Centers Student and Early Career Training



Cultivating the Production of Actionable Science for the Sustainable Management of Natural and Cultural Resources

November 2-3, 2016
University of Massachusetts, Amherst
Campus Center Hotel / Conference Center

#allCSCtraining

Schedule at a Glance

Arrival: Tuesday, November 1- Campus Hotel / Conference Center, UMass Amherst			
Welcome Reception and Registration: DOI Climate Science Centers' Students and Early Career Professionals Suggested dinner: The Hangar (see map)		4:00-6:00pm	Amherst Room, 10th floor
DAY ONE: Wednesday, November 2			
	Coffee with Pastries and Continued Registration	8:00- 8:30	1st Floor Concourse
Morning	**Welcome, Objectives and Desired Outcomes: Richard Palmer and Mary Ratnaswamy**	8:30-9:00	Room 163, 1st Floor
Morning	**CSC Network Overview: Doug Beard**	9:00- 9:30	Room 163, 1st Floor
Morning	**Plenary Talk on Co-Production of Science: Alison Meadow**	9:30-10:30	Room 163, 1st Floor
Morning	**Break**	10:30-11:00	1st Floor Concourse
Morning	**Communicating Climate Science Part 1: Conceptual and Strategic Basis**	11:00-12:00	Room 163, 1st Floor
Morning	**Speed Talks: Part 1**	12:00-12:30	Room 163, 1st Floor
LUNCH: Grab lunch at Blue Wall Return for discussion groups (optional)		12:30-2:00	Discussion rooms TBD
Afternoon	**Knowledge Co-Production Part 1: On-the-Ground Examples**	2:00-3:00	Room 163, 1st Floor
Afternoon	**Knowledge Co-Production Part 2: Developing the Process**	3:00-4:00	Room 163, 1st Floor
Afternoon	**Break and Transition to 10th Floor**	4:00-4:15	Elevators or stairs up!
Afternoon	**Speed Talks: Part 2**	4:15-5:30	Amherst Room, 10th floor
PM	**Poster Session and Tools Presentations**	5:30-6:30	Amherst Room, 10th floor
Dinner on own. Suggested: downtown locations. See restaurant guide at the end of the program.			
Day TWO: Thursday, November 3			
Morning	**Keynote Address: Virginia Burkett**	9:00-9:45	Room 163, 1st Floor
Morning	**Communicating Climate Science to Multiple Audiences. Part 2: Application of Different Climate Change Communication Tools**	9:45-10:45	Room 163 and the break-out rooms 162 & 165
Morning	**Break**	10:45-11:00	1st Floor Concourse
Morning	**Speed Talks: Part 3**	11:00-11:45	Room 163, 1st Floor
Morning	**1) Jobs and Career Paths: How Have People in Our Field Pursued Their Careers?**	11:45-12:45	Room 163, 1st Floor
Morning	**2) What about us? Incorporating Human Benefit Values into Climate Science and Adaptation Planning**		Break-out room 162
LUNCH: Grab lunch at Blue Wall Return for discussion groups (optional)		12:45-2:00pm	Discussion rooms TBD
Afternoon	**1) Decision Support: Crash Course to Get Your Feet Wet**	2:00-3:00	Room 163, 1st Floor
Afternoon	**2) Building Relationship Between Tribes and CSCs**		Break-out room 162
Afternoon	**1) Developing Your Research Agenda: The Path from Your Dissertation to a Funding Portfolio**	3:00-4:00	Room 163, 1st Floor
Afternoon	**2) Planning Under Uncertainty: Conveying our Science to Help Managers Move Forward**		Break-out room 162
Afternoon	**Break**	4:00-4:30	1st Floor Concourse
Afternoon	**Wrap up and Closing Remarks: Richard Palmer and Mary Ratnaswamy**	4:30-5:00	Room 163, 1st Floor
Dinner on own. See restaurant guide at the end of the program.			
Friday, November 4: Sight-seeing and Departure Several walk/hike optinos, vans will be provided			

Guest Speakers

Virginia Burkett

Virginia Burkett is the Chief Scientist for Climate and Land Use Change at the U.S. Geological Survey. She was formerly Chief of the Forest Ecology Branch at the USGS National Wetlands Research Center in Lafayette, Louisiana. Virginia has also served as Secretary Director of the Louisiana Department of Wildlife and Fisheries, Acting Director of the Louisiana Coastal Zone Management Program, and Assistant Director of the Louisiana Geological Survey. She has published extensively on the topics of global change and low-lying coastal zones.

Alison Meadow

Alison is the Staff Scientist for University of Arizona's Center for Climate Adaptation Science and Solutions (CCASS). Her research focuses on collaborative and transdisciplinary research in the fields of climate services and climate adaptation. She also works directly with interdisciplinary research teams to understand the needs of climate information users (including tribal natural resource managers, emergency managers, and cultural resource managers) and to deliver usable climate science for decision-making. Alison received her B.A. (hons) in Native Studies and Anthropology from Trent University, an M.A. in American Indian Studies from The University of Arizona, an M.S. in Urban Planning also from The University of Arizona, and her Ph.D. in Environmental Anthropology from the Resilience and Adaptation Program at University of Alaska Fairbanks.

Ezra Markowitz

Ezra is an Assistant Professor of Environmental Decision-Making at UMass, Amherst and a NE CSC Affiliated Investigator. Ezra's research focuses on the intersection of decision-making, persuasive communication and environmental sustainability. He is the author of over 20 peer-reviewed research papers, book chapters, and reports, including the recently released "Connecting on Climate" guide to climate change communication. At UMass Amherst, Ezra teaches courses on Environmental Decision-Making and Public Engagement and Communication for Scientists.

Training Acknowledgments

This National Climate Science Center (CSC) Training was made possible with support from the Department of Interior's National Climate Change and Wildlife Science Center (NCCWSC) and eight regional DOI Climate Science Centers. The UMass College of Natural Sciences, College of Engineering, the Graduate School and the Departments of Civil and Environmental Engineering, Environmental Conservation, and Geosciences contributed funds for refreshments. The Northeast Climate Science Center collaborated with representatives from each of the other seven CSCs and NCCWSC to develop the training program and jointly facilitate the event. The core agenda planning committee members are:

Northwest CSC
Arwen Bird
Josh Foster
Steve Daly-Larson

Alaska CSC
Kristin Timm
Jane Wolken

NCCWSC
Holly Padgett
Elda Varela Minder

Pacific Islands CSC
Sarah Nash
Sharon Ziegler-Chong
Scott Laursen

North Central CSC
Jill Lackett

Southwest CSC
Christine Schirmer

South Central CSC
Aparna Bamzai

Northeast CSC
Addie Rose Holland
Michelle Staudinger
Toni Lyn Morelli
Jeanne Brown

Southeast CSC
Aranzazu Lascurain

Many thanks to our guest facilitators, invited speakers, panelists, judges, USGS staff, and the Directors of the CSCs whose endorsement and encouragement made this gathering possible! The training was coordinated by NE CSC's Jeanne Brown.

Arrival: Tuesday, November 1					
Welcome Reception and Registration: DOI Climate Science Centers' Students and Early Career Professionals Participants mingle with facilitators, partners and researchers from the CSC network. 6:00pm onward- Suggested dinner location for carry-over discussions and late arrivals is at The Hangar (see restaurant guide at end).				**4:00-6:00pm**	**Amherst Room, 10th floor**
DAY ONE: Wednesday, November 2					
	Coffee and Pastries. Registration Continued			**8:00- 8:30**	**1st Floor Concourse**
Morning	**Welcome, Objectives and Desired Outcomes**	**Richard Palmer & Mary Ratnaswamy** NE CSC Directors	Welcome address and overview of agenda, goals, output	**8:30-9:00**	**Room 163, 1st Floor**
	CSC Network Overview	**Doug Beard** Chief, National Climate Change and Wildlife Science Center	Overview of the National Network of the CSCs from concept, creation, evolution, future. What are some advantages of being part of the network and how students and early career professionals can contribute.	**9:00- 9:30**	**Room 163, 1st Floor**
	Plenary Talk on Co-Production of Science	**Alison Meadow** Staff Scientist - Center for Climate Adaptation Science and Solutions	"Moving toward the deliberate co-production of climate science knowledge". Alison Meadow's keynote presentation will offer the theoretical backdrop and history of the concept of knowledge co-production and offer deliberate approaches we can use to build collaborative stakeholder-driven research efforts.	**9:30-10:30**	**Room 163, 1st Floor**
	Break			**10:30-11:00**	**1st Floor Concourse**
	Communicating Climate Science to Multiple Audiences: Why we do it, and how to plan for it. Part 1: Conceptual and Strategic Basis	**Guest Speaker: Ezra Markowitz** Assistant Professor, UMass Amherst Session Leads: Michelle Staudinger (NE CSC), Arwen Bird (NW CSC)	This session will provide an overview of why we communicate science, and climate science in particular, to different technical and non-technical audiences. Participants will learn skills, techniques, and platforms appropriate for developing audience-specific messages and communicating with fellow scientists, national and international decision and policy-makers, informed stakeholders (e.g. natural resource managers), tribal nations, and the public. We will hear from a range of experts on their experiences communicating climate science to different audiences, with opportunities to ask questions as part of an expert panel discussion. Panelists include: 1) Ezra Markowitz (UMass Amherst); 2) Ray Bradley (NE CSC PI); 3) Steve Daley-Larsen (NW CSC PI); 4) April Taylor (SC CSC, Tribal engagement)	**11:00-12:00**	**Room 163, 1st Floor**
	Speed Talks: Part 1	Seven 3-minute talks in order of alphabetical by first name.	Short 3 minute talks on the participants' research or area of work. To encourage communication skills development, talks will be tailored to ***non-scientific*** audiences (media, resource managers, congressional representatives, someone from a completely different discipline).	**12:00-:12:30**	**Room 163, 1st Floor**
LUNCH: Grab lunch at Blue Wall Optional: Return with your lunch to meet up in discussion groups 1) Climate 101 for Non-Climate Scientists with Alex Bryan, NE CSC; 2) Participants' Discussion Groups: Graduate Students, Post-docs, Early Career Professionals assemble to share tips and challenges unique to thier phase of education and career.				**12:30-2:00**	**Discussion rooms TBD**
Day One Afternoon	**Knowledge Co-Production** **Part 1: On-the-Ground Examples**	Session Leads: Scott Laursen (PI CSC), Sharon Ziegler-Chong (PI CSC), Josh Foster (NW CSC), Jill Lackett (NC CSC), Steve Daly-Larsen (NW CSC)	Following the keynote address, which will survey the development of knowledge co-production over the past two decades, this panel session will present a range of on-the-ground examples of knowledge co-production programs as a practical mechanism through which to build community resiliency and adaption through times of change (e.g. climate change, land-use change, invasive species impacts, cultural change). Panel presenters will be Kim Winton (USGS Director of the South Central CSC), Scott Laursen (University of Hawaii at Hilo, Pacific Islands CSC) and a third panelist TBD.	**2:00-3:00**	**Room 163, 1st Floor**
	Knowledge Co-Production **Part 2: Developing the Process**	Session Leads: Scott Laursen (PI CSC), Sharon Ziegler-Chong (PI CSC), Josh Foster (NW CSC), Jill Lackett (NC CSC), Steve Daly-Larsen (NW CSC)	This session will stimulate fellows to actively and collaboratively engage the process of knowledge co-production (KC) according to the diverse skills and experiences within each small group. Round table discussions will address 5 basic questions: 1) who are the stakeholders your group would like to address (e.g. what scale do they interact with natural resources and communities?) 2) who are the knowledge producers you would like to involve? 3) how will you engage the stakeholders and develop iterative reciprocal interactions between knowledge producers and stakeholders? 4) how will you establish long-term relationships between stakeholders and knowledge co-producers? and 5) how can we stimulate "rewards" to increasingly incentivize KC networks and longer term thought/action toward community resiliency and adaptation? These questions are not intended to isolate the best answers (optimal answers are place and scale dependent), but to stimulate fellows to actively engage the process of KC.	**3:00-4:00**	**Room 163, 1st Floor**
	Break and Transition to 10th Floor			**4:00-4:15**	**Elevators or stairs up!**

Day One Evening	**Speed Talks: Part 2**	Twenty 3-minute talks in order of alphabetical by first name.	Short 3 minute talks on the participants' research or area of work. To encourage communication skills development, talks will be tailored to ***non-scientific*** audiences (media, resource managers, congressional representatives, someone from a completely different discipline).	**4:15-5:30**	**Amherst Room, 10th floor**
	Poster Session Contest and Delivering Climate Science: Tools for Managers to Use Your Results	Poster Session Leads: Aranzazu Lascurain (SE CSC), Holly Padgett (NCCWSC). Tools Café session lead: Katherine Hegewisch (NW CSC)	Like the speed talks, poster presentations and tool demonstrations are tailored to non-scientific audiences (media, resource managers, congressional representatives, someone from a completely different discipline). Poster presenters will also be required to give a short oral explanation of their poster as part of a judged competition. Participants presenting a tool and poster will have 10 minutes. Refer to the Speed Talk, Poster, Tool Guidelines for additional information. *We have the Amherst Room until 11pm. Posters will be moved by conference services to room 163 on the 1st floor at 9pm.*	**5:30-6:30**	**Amherst Room, 10th floor**
	Dinner on own	Participants assemble at downtown restaurants (High Horse, for example) to continue various carry-over discussions • Knowledge exchange, synergistic collaboration & networking!		**See restaurant guide at the end of the program**	
Day TWO: Thursday, November 3					
Morning	**Keynote Address**	**Virginia Burkett** **Associate Director, Climate and Land Use, USGS**	"Communicating climate science: lessons learned and skills to cultivate"	**9:00-9:45**	**Room 163, 1st Floor**
	Communicating Climate Science to Multiple Audiences: Why we do it, how to plan for different audiences. **Part 2: Application of Different Climate Change Communication Tools**	Session Leads: Michelle Staudinger (NE CSC), Arwen Bird (NW CSC)	Choose your own adventure: the second half of this session will consist of interactive, break-out activities that are self-selected by participants. 1) COMPASS Message Box (Lead by Arwen Bird, Meaghan Guckian, Katherine Hegewisch, Shana Hirsch): Participants will practice using 'the message box' tool to craft and hone short messages about their research. Message distillation is essential for work with media, presentations, proposals and the ubiquitous elevator speech. To be run by Arwen Bird, Shana Hirsch and Katherine Hegewisch. 2) Communicating with the Media (Lead by Lindsey Middleton, Emily Fort, Toni Klemm, Kristin Donahue): Guidelines and interactive activity on how to talk with journalists and the media. Participants will bring a recent publication or other product to develop talking points and practice, record, and review responses to common media interview questions. 3) Debating Climate Change (Lead by Michelle Staudinger & Katie Renwick): In this interactive session, participants will take turns in small groups playing out assigned roles as either 1) a scientist - explaining climate change science and rebutting global warming misinformation or 2) the public - a congressman, town planner, small-town farmer, deer hunter, etc. Participants will be given actual climate science deniers quotes/'facts'/statements and will practice communicating proper scientific knowledge to truthfully and respectfully explain and debunk mis-information. This activity will be mediated by experts who will provide feedback and assistance on additional communication tools and techniques to help address mis-information, uncertainty, and other challenges we face in communicating climate science.	**9:45-10:45**	**Room 163 and the break-out rooms 162 & 165**
	Break			**10:45-11:15**	**1st Floor Concourse**
	Speed Talks: Part 3	Seven 3-minute talks in order of alphabetical by first name.	Short 3 minute talks on the participants' research or area of work. To encourage communication skills development, talks will be tailored to ***non-scientific*** audiences (media, resource managers, congressional representatives, someone from a completely different discipline).	**11:15-11:45**	**Room 163, 1st Floor**
	1st Concurrent Session (choose one)				
	1) Jobs and Career Paths: How Have People in Our Field Pursued Their Careers?	Session Leads: Toni Lyn Morelli (NE CSC) and Josh Foster (NW CSC)	What are some of the various ways people in our field have pursued their careers, and what permanent jobs have they obtained successfully? This session will have a panel of professionals who represent a variety of careers and paths to that choice (CSC Directors, federal scientists, conservation practitioners, and faculty).	**11:45-12:45**	**Room 163, 1st Floor**
	2) What about us? Incorporating Human Benefit Values into Climate Science and Adaptation Planning	Session Leads: Janet Cushing (NCCWSC) and Meaghan Guckian (NE CSC)	Human values play a powerful role in shaping individuals' engagement with environmental issues including climate change and adaptation planning. In this session, we will introduce the role of human values in climate change engagement and further discuss ways to incorporate human benefits and values into climate change research and adaptation planning. This session will start with a brief introduction to the topic (about the applicability, recognition and inclusion of human values in climate science and adaptation planning) followed by a series of 5-8 minute talks from speakers who will speak to tribal perspectives, tools for engaging researchers in community-based values, and leveraging multiple stakeholder values and perspectives. The session will conclude with a round-table QA.		**Break-out room 162**
	LUNCH: Grab lunch at Blue Wall Optional: Return with your lunch to meet up in discussion groups **1) Interdisciplinary Project**s Work through example interdisciplinary projects while showcasing collaborations with communicators, social scientists, resource managers, climate scientists, economists, engineers, etc. **2) Diversity and Inclusiveness – Transforming Ourselves and Our Work** Our work in climate science and resource management exists within the context of a US society that is increasingly diverse. To remain socially relevant, our organizations and our movement should reflect the diversity of society as a whole. But we have yet to make that transformation, jeopardizing our connection to future generations and narrowing our social relevance in the meantime. How can we as individuals and even organizations address this discrepancy? We will have a facilitated discussion about personal and institutional challenges to increase diversity and inclusiveness.			**12:45-2:00pm**	**1) Room 163** **2) Room 165**

Day TWO: Thursday, November 3 (continued)

Afternoon	**2nd Concurrent Discussions (choose one)**				
	1) Decision Support: Crash Course to Get Your Feet Wet	Session Leads: Evan Grant (USGS), Tom Bonnott (NE CSC), Toni Lyn Morelli (NE CSC)	Explore the decision problem driving your research. Provided with explanations of formal decision analysis concepts and real-world examples, attendees will attempt to think through the problems, objectives, alternatives, and uncertainties motivating their research. They will be introduce decision analysis tools that can be used to structure uncertainties and complexities of decisions.	**2:00-3:00**	**Room 163, 1st Floor**
	2) Building Relationship Between Tribes and CSCs	Session Leads: April Taylor (SC CSC), Marie Schaefer (NE CSC), Chris Caldwell (NE CSC)	This topic provides an opportunity to build understanding of issues unique to Tribes and for researchers to explore ways to engage with Tribes to address climate change questions. We'll cover tips for "Working in Indian Country", sensitivities regarding TEK, among other topics.		**Break-out room 162**
	3rd Concurrent Discussions (chose one)				
	1) Developing Your Research Agenda: The Path from Your Dissertation to a Funding Portfolio	Session Leads: Aparna Bamzai (SC CSC) and Addie Rose Holland (NE CSC)	Are you daunted about life after grad school or your post doc? This session will challenge you to consider how your early career research activities fit into your broader future research agenda. As we progress through our education, our research focus becomes narrower and narrower. But as we move towards developing future research projects and collaborations, we need to broaden our focus to accommodate the needs of the funding community and our research partners. We'll hear from a group of advanced career researchers about their approach to developing a funding portfolio and how their focus changed over time. We'll also discuss creative ways to pitch your project ideas to collaborators and funding agencies, important grant guidelines, and how to set up and manage a successful project and research team once you do get funded. Join us, and learn more about how to develop these important skills!	**3:00-4:00**	**Room 163, 1st Floor**
	2) Planning Under Uncertainty: Conveying our Science to Help Managers Move Forward	Session Leads: Alex Bryan (NE CSC); Panelists: Imtiaz Rangwala (NC CSC), Derek Rosendahl (SC CSC), Adam Terando (SE CSC)	Uncertainty is pervasive in climate change adaptation planning. The word itself can paralyze managers into inaction. Fortunately, there are ways we can present our uncertain science that enable managers to make sound decisions and act with confidence. First, we need to understand the uncertainties they face, and strategies they use to overcome uncertainty; then, we can have a better sense of the resources we can provide that will help them through. In this session, we will walk through actual case studies in which managers successfully made decisions, emphasizing the (1) uncertainties at hand, (2) approaches the managers used to deal with the uncertainties, and (3) tools scientists provided that were most helpful. We will also explore failed strategies as lessons toward approaches to avoid. With our help, uncertainty no longer has to be a barrier in conservation planning and the limiting factor that prohibits action.		**Break-out room 162**
	Break: Participants can use this time to reflect on examples of networking and knowledge exchange that have occurred at the training, highlights, what they will apply when they get home, who they plan to follow up with, etc.			**4:00-4:30**	**1st Floor Concourse**
	Wrap up and Closing Remarks	**Richard Palmer and Mary Ratnaswamy NE CSC Directors**	What are some of the take-aways, next steps, and overall impressions Awards will be given for best talk and poster presentation	**4:30-5:00**	**Room 163, 1st Floor**
	Dinner	NE CSC Fellows Lead different topic/expertise groups. Carry on the Discussion! Spill-over small-group discussions amongst participants		**See restaurant guide at the end of the program**	

Friday, November 4: Sight-seeing and Departure Several locations will be offered for the various departure times. Van / car drivers: Jeanne Brown, Alexej Siren, Dan Miller, Addie Rose Holland
9am-10am: short, nearby walk
9am-12pm: Sugarloaf Mountain, Holyoke Range, Mt. Toby or Mt Tom

Goals of the Training:

- ***Encourage broadly relevant skills*** *related to climate science and the co-production of science;*
- ***Showcase research and tools*** *that have been funded by USGS through the CSC network since the onset of the program five years ago; and*
- *Provide opportunities for early career scientists to* ***network with and learn*** *from each other, scientists, and stakeholders, as well as* ***contribute ideas*** *toward future directions of the CSC enterprise.*

Specific Outcomes

At the end of the 2-day training, CSC students and early career professionals will have:

- *Broadened their* ***understanding of the impacts of climate change*** *on natural and cultural resources from a diversity of angles*
- *Have a better idea of how* ***to identify stakeholders and develop research projects*** *that directly answer natural resource management questions*
- *Learned how to* ***develop useful climate adaptation tools*** *as research products*
- *Improved their ability to* ***communicate climate research*** *results to a wide range of audiences*
- *Strengthened the community of students and* ***increase collaborations*** *among CSC researchers*

Participant Contact Info and Presentation Titles*

Abigail Ericson Master's Student, UMass Amherst, NE CSC	aericson@umass.edu
Short Talk: "Reconnecting Floodplains and Restoring Green Spaces as a Management Strategy to Minimize Risk and Increase Resilience to the Context of Climate and Landscape Change"	
Alan Black Assistant Professor, Louisiana State University, SC CSC	ablack@lsu.edu
Poster: "Precipitation Impacts on Automobile Crashes in the United States"	
Alex Bryan Postdoc, USGS, NE CSC	abryan@usgs.gov
Poster: "Different climate models, different forecasts: When does it affect my decision?"	
Alexandra McIntyre Master's Student, UMass, NE CSC	amcintyre@umass.edu
Poster: "Analyzing Streamflow Forecasts in the Context of System Performance: A Case Study of the City of Baltimore Water Suplly"	
Alexej Siren PhD Student, UMass Amherst, NE CSC	asiren@umass.edu
Poster: "Using remote cameras to monitor climate and wildlife"	
Amanda Cravens Mendenhall Postdoc, USGS, NC CSC	aecravens@usgs.gov
Short Talk "Crossing boundaries in a collaborative modeling workspace"	
Ambarish Karmalkar Postdoc, UMass Amherst, NE CSC	akarmalkar@geo.umass.edu
Andrew Battles PhD Student, NCCWSC	andrewcbattles@gmail.com
Poster: "Connecting scientists and managers to tackle evolutionary responses to climate change"	
Bogumila Backiel Master's Student, UMass, NE CSC	bbackiel@umass.edu
Poster: "Creating a Spatial Model to Map Sandbars in the Connecticut River Watershed for Floodplain Species Conservation"	
Britta Daudert Assistant Research Scientist, Desert Research Institute, SW CSC	bdaudert@dri.edu
Tool: "SCENIC; Delivering climate datasets and analysis tools to scientists and resource managers"	
Chandra Legdesog Master's Student, University of Guam, PI CSC	Chandralegdesog@yahoo.com
Short Talk: "Traditional Ecological Knowledge of Ulithi Atoll in Micronesia"	
Chloe Magee Graduate Research Assistant, SC CSC, U of Oklahoma	chloe.magee@ou.edu
Poster: "Tornado Warning Forecast Areas"	
Corey Lesk Research Assistant, Columbia University, NE CSC	coreylesk@gmail.com
Poster: "Threats to North American forests from southern pine beetle with warming winters"	
Coryn Collins Master's Student, Louisiana State University, SC CSC	ccoll82@lsu.edu
Poster: "The Influence of ENSO on Tornadoes in the U.S."	
Daniel Greene Postdoc, Texas Tech University, SC CSC	daniel.greene@ttu.edu
Short Talk: "Assessing wildlife-habitat relationships in relation to thermal tolerance in the Southern Great Plains"	
Daniel Miller PhD Student, UMass Amherst, NE CSC	dmiller@geo.umass.edu
Poster: "Assessing Fire Risk in the Northeastern United States"	
Darrian Bertrand Master's Student, University of Oklahoma, SC CSC	darriannoyes@ou.edu
Poster: "Future Hydrologic Extremes in the Red River Basin"	
Dominic Libera PhD Student, NC State University, SE CSC	dalibera@ncsu.edu
Poster: "Reducing Uncertainty in Predicting Total Nitrogen Concentration and Loadings across the Southeastern United States"	
Elsita Kiekebusch PhD, NC State University, SE CSC	emkiekeb@ncsu.edu
Short Talk: "Measuring the impacts of climate change on butterflies"	
Ethan Coffel PhD Student, Columbia University, NE CSC	ecoffel@gmail.com
Short Talk: "Climate change and exposure to heat stress"	
Evan Childress Postdoc, USGS, NE CSC	evan.childress@gmail.com
Short Talk: "Can evolution save species from climate change?"	
Garth Lindner Postdoc, University of Missouri, NE CSC	lindnerg@missouri.edu
Poster: "Mapping flood patterns to address management needs on the Missouri River"	
Georgina Sanchez PhD Student, NC State University, SE CSC	gmsanch@ncsu.edu
Short Talk: "Simulating Urban Growth for Assessing Future Water Demand"	
Gilman Ouellette PhD, Louisiana State University, SC CSC	gilman.ouellette@gmail.com
Short Talk: "Corals: Historians of the Sea"	
Gregory Gauthier TCU AmeriCorps VISTA with the College of Menominee Nation	ggauthier@menominee.edu
TBD: Perspectives on working as a VISTA volunteer	
Helen Cold Master's Student, University of Alaska Fairbanks, AK CSC	hscold@alaska.edu
Short Talk: "Influence of a Changing Climate on Subsistence Resource Access for Rural Interior Alaskan Residents"	
Helen Sofaer Postdoc, USGS, NC CSC	hsofaer@usgs.gov
Short Talk: "Which species will be most vulnerable to climate change?"	
Jacob Fraser Research Specialist, USGS, NE CSC	fraserjs@missouri.edu
Short Talk: "The future of Eastern U.S. forests in a changing climate"	
Jenell Larsen Master's Student, University of Alaska Fairbanks, AK CSC	jtlarsen@alaska.edu
Short Talk: "Reading ovaries: broadening our understanding of responses to environmental changes"	
Jessica Blackband Communications Specialist, SC CSC	jkblackband@gmail.com
Short Talk: "Communications Planning to Facilitate Knowledge Co-Production."	
Jessica Kirkpatrick Master's Student, University of Hawaii, PI CSC	jakirkpa@hawaii.edu
Short Talk: "Endemic arthropod distributions on the summit of a Hawaiian Volcano"	
Jiake Zhou Master's Student, University of Alaska Fairbanks, AK CSC	jzhou2@alaska.edu
Poster: "Climate change impact on subsistence livelihood: a moose-hunter system of Nuiqsut in the Arctic Alaska"	
Jordan Rosencranz Doctoral Candidate, Research Assistant, UCLA, SW CSC	jrosencranz@usgs.gov
Short Talk: "Rising seas and the grim fate of Belding's savannah sparrows along the Southern California Bight"	
Katherine Hegewisch Postdoc, University of Idaho, NW CSC	khegewisch@uidaho.edu
Tool: "Future Projections for Climate, Hydrology and Vegetation for the Pacific Northwest, USA (Integrated Scenarios Project)"	
Kathleen Carroll PhD Student, Montana State University, NC CSC	kathleen-carroll@mocs.utc.edu
Short Talk: "Wolverine Habitat Connectivity"	
Katie Renwick Postdoc, Montana State University, NC CSC	katie.renwick@gmail.com
Poster: "How will climate change affect sagebrush?"	
Keenan Yakola Master's Student, UMass Amherst, Project Puffin, NE CSC	kyakola@gmail.com
Poster: "Long-term changes in the Chick Diet, Growth and Productivity of Three *Sterna* spp. in Response to CC in the Gulf of Maine"	
Krista Mougey Visiting Postdoctoral Scholar, Texas Tech University, SC CSC	krista.mougey@ttu.edu
Short Talk: "Vulnerability of Desert Reptiles and Amphibians to Climate Change"	
Kristen Donahue Biologist, USGS, NCCWSC	kdonahue@usgs.gov
Kristopher Winiarski PhD Student, UMass Amherst, NE CSC	withakri@gmail.com
Poster: "Impacts of Climate Change on Wildlife Populations"	
Lei Qiao Postdoc, Oklahoma State University, SC CSC	Lei.qiao@okstate.edu
Short Talk: "Woody Plants impact runoff and water resources in the Southern Great Plains"	
Lindsey Parkinson Master's Student, University of Alaska Fairbanks, AK CSC	parkinson.lindsey@gmail.com
Short Talk: "Berry productivity in response to fire in northern and interior Alaska"	
Lynn Rae Master's Student, University of Arizona, SW CSC	lynnrae@email.arizona.edu
Short Talk: "Advancements in Tribal Climate Change Adaptation Planning: An Evaluation of Strategies, Partnerships, and Decision Making Processes"	
Madeleine Rubenstein Biologist, USGS, NCCWSC	mrubenstein@usgs.gov
Short Talk: "When Timing is Everything: Synchronized Migration in a Changing Climate"	
Madeline Magee Postdoc, University of Wisconsin, Madison, NE CSC	mrmagee@wisc.edu
Short Talk: "Fish habitat of Wisconsin lakes under changing climate"	
Mikaela Heming Undergrad, UMass Amherst	mheming@umass.edu
Tool: " Massachusetts Wildlife Climate Action Tool: inspiring on-the-ground adaptation"	

*Presentation order and type subject to change

Marcelo Somos-Valenzuela Postdoc, UMass Amherst, NE CSC	msomosvalenz@umass.edu
Short Talk: "Combining remote sensing data and land surface model to simulate hydrological processes in the Northeast of the US"	
Marie Schaefer PhD Student, Michigan State University, NE CSC	schae164@msu.edu
Mary Heskel Postdoc, Marine Biological Laboratory, NE CSC	mheskel@mbl.edu
Poster: "Quantifying growing season carbon fluxes in Central Massachusetts"	
Meaghan Guckian PhD Student, UMass Amherst, NE CSC	mguckian@umass.edu
Tool: "Communicate, Collaborate and Develop: The Early Career Climate Forum (ECCF)"	
Melissa Wagner Master's Student, University of Oklahoma, SC CSC	mjwagner@ou.edu
Poster: "Statistical Drought Prediction"	
Miranda Curzon Postdoc, University of Minnesota, NE CSC	mcurzon@umn.edu
Short Talk: "Functional diversity as a management goal and tool for increasing forest resilience to climate-induced stress"	
Natasja van Gestel, Research Assistant Professor, Texas Tech University, SC CSC	natasja.van-gestel@nau.edu
Poster: "A New Approach to Synthesizing Results from Global Change Experiments"	
Nigel Golden PhD Student, UMass Amherst, NE CSC	ngolden@umass.edu
Poster: "Effects of arctic ground squirrel abundance and distribution on carbon cycling and ecosystem dynamics"	
Pablo Tovar Phd Student, Texas Tech University, SC CSC	pablo.tovar@ttu.edu
Short Talk: "Soil microbes and climate change"	
Paul Damkot PhD Student, UMass Amherst, NE CSC	pdamkot@eco.umass.edu
Poster: "Does (stream) size matter? Brook trout occurrence in headwater streams"	
Phillip John Cruz PMBA, University of Guam, PI CSC	phillipcruz@triton.uog.edu
TBD: Building climate change resiliency to small businesses on small islands	
Robert Mooney PhD Student, University of Wisconsin Madison, NE CSC	rjmooney@wisc.edu
Short Talk: "Effects of land use and seasonality on nutrient loads from Lake Michigan's tributaries"	
Sarah Weiskopf Presidential Management Fellow Biologist, NCCWSC	sweiskopf@usgs.gov
Short Talk: "Assessing Biodiversity, Ecosystems, and Ecosystem Services for the Fourth National Climate Assessment"	
Sean C. Sterrett Postdoc, USGS, NE CSC	seansterrett@gmail.com
Poster: "Effective Integration of research and education using a geographically distributed network (SPARCnet)"	
Shana Hirsch PhD Candidate, University of Idaho, NW CSC	shanalhirsch@gmail.com
Poster: "Adapting scientific practice and environmental restoration in a changing climate"	
Tessa Hasbrouck Master's Student, University of Alaska Fairbanks, AK CSC	trhasbrouck@alaska.edu
Short Talk: "Climate Change is Affecting My Dinner!"	
Thomas Bonnot PhD Student, University of Missouri, NE CSC	bonnott@missouri.edu
Short Talk: "Complex, species-specific population responses to interactions among forest succession, management, and climate change"	
Tim Duclos Master's Student, UMass Amherst, NE CSC	Tduclos@umass.edu
Short Talk: "Climate, Forests, and Birds: Disentangling the Direct and Indirect Influence of Climate on Patterns of Bird Abundance Across Elevation in the Presidential Mountains of New Hampshire"	
Toni Klemm PhD Candidate, University of Oklahoma, SC CSC	toni@ou.edu
Poster: "Improving Seasonal Climate Forecasting for Winter Wheat Producers in the South-Central U.S."	
Tyler Beeton PhD Student, Colorado State University, NC CSC	tybeeton@gmail.com
Short Talk: "Making climate science usable: Integrating local knowledges and observations with climate science for climate adaptation on public and tribal lands"	
Valerie Pasquarella Postdoc, UMass Amherst, NE CSC	valerie.pasquarella@gmail.com
Poster: "Using Landsat time series to improve ecosystem mapping and monitoring"	
Veronica Fall Master's Student, SC CSC, University of Oklahoma	veronica.fall@ou.edu
Short Talk: "Snowfall Changes During the California Drought"	
Wen J. Wang Research Associate, University of Missouri, NE CSC	wangwenj@missouri.edu
Short Talk: "Predicting forest responses to climate change and disturbance in the Eastern Unites States"	
Wilmer Reyes PhD Student, NC State University, SE CSC	wmreyess@ncsu.edu
Short Talk: "Spatial patterns and temporal trends of satellite-derived precipitation over Honduras"	

Guest Speakers, Facilitators, and Planning Committee Contact Info

Addie Rose Holland Program Manager, NE CSC, UMass Amherst	aholland@geo.umass.edu
Alison Meadow Staff Scientist, Center for Climate Adaptation Science and Solutions, UArizona	meadow@email.arizona.edu
Aparna Bamza University Assistant Director, SC CSC, University of Oklahoma	aparna@ou.edu
April Taylor Sustainability Scientist, SC CSC, Chicksaw Nation	April.Taylor@chickasaw.net
Aranzazu Lascurain Program Manager, SE CSC, NC State University	alascur@ncsu.edu
Arwen Bird Training Coordinator, NW CSC, Oregon State University	nwclimatecamp@gmail.com
Chris Caldwell Dir. of Sustainable Development Institute, College of Menominee Nation, NE CSC	ccaldwell@menominee.edu
Christine Schirmer Program and Communications Manager, SW CSC, University of Arizona	chrissch@email.arizona.edu
Curt Griffin Professor and Department Head, Environmental Conservation UMass, NE CSC PI	cgriffin@eco.umass.edu
Darren Lerner Director, PI CSC, University of Hawaii	lerner@hawaii.edu
Doug Beard Chief, NCCWSC, USGS	dbeard@usgs.gov
Emily Fort Data, Technology, and Communications Coordinator, NCCWSC, USGS	efort@usgs.gov
Evan Grant Research Wildlife Biologist, USGS	ehgrant@usgs.gov
Ezra Markowitz Assistant Professor, UMass Amherst	emarkowitz@eco.umass.edu
Gus Bisbal Director, NW CSC, USGS	gbisbal@usgs.gov
Jane Wolken Program Coordinator, AK CSC, University of Alaska	jmwolken@alaska.edu
Janet Cushing Deputy Chief, NCCWSC, USGS	jcushing@usgs.gov
Jeanne Brown Communications Outreach Manager, NE CSC, UMass Amherst	jeannebrown@umass.edu
Jerry McMahon Director, SE CSC	gmcmahon@usgs.gov
Jill Lackett University Program Manager, NC CSC, Colorado State University	jill.lackett@colostate.edu
Josh Foster University Program Manager, NW CSC, Oregon State University	jfoster@coas.oregonstate,edu
Keith Nislow Adjunct Associate Professor, UMass & Principle Investigator, NE CSC	knislow@umass.edu
Kim Winton Director, SC CSC	kwinton@usgs.gov
Lindsey Middleton Communications Specialist, NC CSC, Colorado State University	lindsey.middleton@colostate.edu
Mary Ratnaswamy Director, NE CSC, USGS	mratnaswamy@usgs.gov
Michelle Staudinger Science Coordinator, NE CSC, UMass Amherst	mstaudinger@usgs.gov
Paul Barten Professor, Environmental Conservation, UMAss Amherst	pkbarten@eco.umass.edu
Peter S Murdoch Science Advisor, NE CSC, USGS	Pmurdoch@usgs.gov
Ray Bradley Distinguished Professor, NE CSC Principal Investigator, UMass Amherst	rbradley@geo.umass.edu
Richard Palmer University Director, NE CSC, UMass Amherst	rpalmer@umass.edu
Scott Laursen Technical Project Specialist, PI CSC, University of Hawaii	slaursen@hawaii.edu
Sharon Ziegler-Chong Director, UH Hilo Research and Community Partnerships, PI CSC, UHawaii	ziegler@hawaii.edu
Steven B. Daley-Laursen Professor, NW CSC, University of Idaho	stevendl@uidaho.edu
Toni Lyn Morelli Research Ecologist, NE CSC, USGS	tmorelli@usgs.gov
Virginia Burkett Chief Scientist for Climate and Land Use Change, USGS	virginia_burkett@usgs.gov

On Campus Dining at or Near the Campus Center:

Blue Wall is UMass's award-winning (really! As in, #1 in the nation!) on-campus retail dining center located in the concourse of the Campus Center. Lots of choices, many of which are open for dinner. Across the concourse is the Harvest Market which offers a hot bar (includes curries), packaged food and snacks, salad bar, smoothies, and hot breakfast options.
U-Pub: On-site bar, next to Harvest Market (open until 10pm).
University Book Store: some snacks, gum, etc.

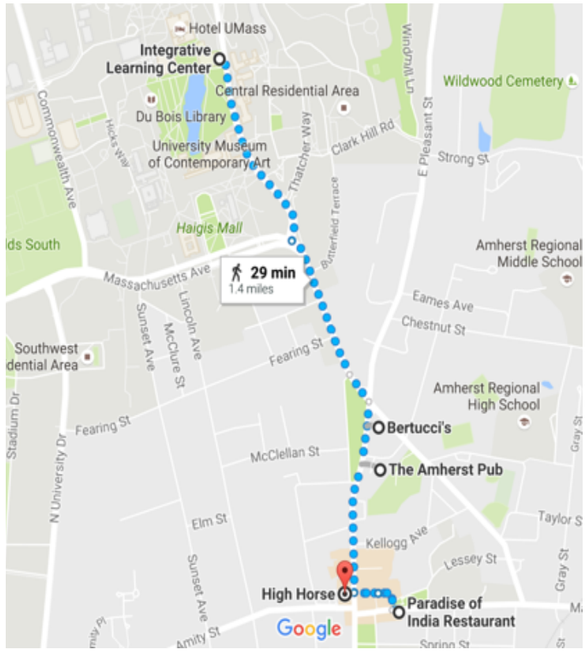
Local Restaurants (walking distance or on bus routes)

The Hangar Pub and Grill, 10 University Dr. 1.5 miles, 30 minute walk. Big, open space, good for groups. The Hanger is located on multiple bus routes. The 33 Big Y/ Stop and Shop bus picks up from the Integrated Learning Center stop and drops off at the Amity Place (In) stop, located across the street from The Hanger.

Downtown Restaurants: Easily accessible by bus: 30 Old Belchertown Road or 31 South Amherst bus can be taken from the Integrated Learning stop to the Amherst Post Office stop in town. Lots to choose from (Middle-Eastern, dim sum, Vietnamese, sushi, Thai, Indian, cafes, upscale or dive bars, etc.). Here are a few:

High Horse, 24 N Pleasant St. Good for largish-groups. They focus on local ingredients and local beer. Upstairs has a large casual bar, some bar food.
Judie's Restaurant 51 N Pleasant St. Good for smaller groups (<10ppl).
Amherst Pub, 15 E Pleasant St. Great outdoor seating and specials. Smaller groups.
Bertucci's (pizza/pasta) 51 E Pleasant St. Take the Pray St. (Out) stop. Could take small-medium sized groups.
Pasta E Basta, 26 Main St. Smaller groups. Take the Amherst Common stop.
Bueno Y Sano, 1 Boltwood Walk. Easy quick dine-in or take-out.
Crazy Noodle, 36 Main St. Easy quick dine-in or take-out.

North of Campus Options: Japanese/Korean, Pizza, Harp Pub
Bus line 46



Notes, Doodles:

Training Venue:
Campus Center
University of Massachusetts, Amherst