



SHARE-A-THONS: SESSION I

SESSION DESCRIPTIONS

Climate Change and the Ocean: Awareness to Action [CAVALIER A]

Sarah-Mae Nelson (Monterey Bay Aquarium)

Video presentations of three programs developed to communicate climate change and the oceans, as well as solutions including adaptation and mitigation; a fourth video presents an animation used as a PSA and is presented on our website.

Youth Media Production to Educate, Innovate, and Engage [CAVALIER B]

Juliette Rooney-Varga (UMass Lowell)

We are developing approaches to bring student media production into climate change education in ways that are engaging, empowering, and can be readily adopted in a wide range of instructional environments. We have found that student media-making can be used to overcome many of the challenges that climate change education presents and is an excellent way to bring active, social, and affective learning to one of the most important and most complex problems facing human society today.

Worldviews Network [CAVALIER C]

Ka Chun Yu (Denver Museum of Nature & Science)

The Worldviews Network creates bioregional community dialogues using immersive visualizations within a national network of educators, researchers, and content specialists. We will demonstrate how cloud and other online resources can be used by a distributed network to enable professional development, and the production of dialogues from development to distribution.

New Climate Change Education Initiative at NCSE [CONCOURSE 1]

Mark McCaffrey (National Center for Science Education)

Long a defender of teaching evolution in public schools, NCSE has recently launched a new initiative to defend and support climate change education and addressing denial of climate science.

Teachers Domain / PBS LearningMedia Climate Literacy Collection [CONCOURSE 2]

Ted Sicker (WGBH Educational Foundation)

This collection on our digital library site incorporate climate change educational media from a number of public media project's, including WGBH's current and past NSF and NASA-funded collections.

Documenting Indigenous Environmental Knowledge [MEZZANINE 2]

Sharon Nelson-Barber (PREL)

Improving STEM education is a critical need in many communities. Increasingly communities, educators, and scholars are finding that it is imperative to build from community based expertise and knowledge to improve STEM education in meaningful and self-determining ways. We asked our collaborators to bring local experience, observations and stories to about ways to strengthen STEM education through indigenous knowledge and ways of knowing.



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Measures of Student Motivation in On-Line, High School Materials: Carbon Connections [COMM SOUTH Left]

Steve Getty (BSCS)

Using a new measure of student motivation, the session will describe thousands of on-line responses regarding how digital materials for high school students are being used to understand components of student motivation, as related to student achievement and interest in science. The validated measures shows how expectancy, value, and cost correlate with student work in the large, spring, 2011, field-test of the NASA-supported, high school materials by BSCS, Carbon Connections.

Curriculum and Framework for a Dual-Credit High School Course in Climate Science [COMM SOUTH Right]

Miriam Bertram (University of Washington-Seattle)

The framework for a semester or year-long lab and algebra-based course on climate science, offered for UW credit in the high school, will be presented. The abundant opportunity for including materials developed by colleagues at this meeting will be emphasized.

CHANGE Viewer: Investigating Climate Change Impacts on Human Health [COMM SOUTH Middle]

Amy Work (Cayuga Community College)

This presentation will demonstrate the CHANGE Viewer, built using NASA World Wind, an open source, 3-D geo-visualization tool. The CHANGE Viewer provides access to climate and socio-economic datasets needed to examine where and how climate change will impact human health around the world.

Creating a Good Climate for Dialogue [COMM SOUTH Table 1]

Rebecca Smith, Karen McNeal, Julian Carroll (Mississippi State University)

Participants will experience how CLIPSE (Climate Literacy Partnership in the Southeast) creates a safe place for honest, civil dialogue on the topic of climate change. Participants will take home CLIPSE's "Golden Rules" and role play different perspectives of people in the Southeast US, in faith, agricultural, and leisure communities.

Environmental Literacy Framework (ELF) [COMM SOUTH Table 2]

Frank Rack (ANDRILL Science Management Office)

The primary deliverable of our NOAA project is the "Environmental Literacy Framework, with a focus on Climate Change", or the ELF. By defining essential principles of Environmental Literacy, the ELF provides the means for teachers to incorporate climate change lessons into their existing curricula and the principles are linked back to National Science Education Standards. We plan to prepare the entire collection of ELF activity modules developed by this NOAA project for submission to the CLEAN Pathway for review and acceptance by the end of 2013. Each of these activity modules will be accessed online with a unique URL to enhance their discovery by teachers and students.

Arctic Home [COMM SOUTH Table 3]

Stephanie Pfirman (Barnard College/Columbia University)

See the Arctic ecosystem card game demonstrated.



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Exploring the Environment: Global Climate Change PBL Modules [COMM SOUTH Table 4]

Laurie Ruberg (Wheeling Jesuit University, Center for Educational Technologies)

The Exploring the Environment – Global Climate Change (ETE-GCC) Web site has five problem based learning modules ready for pilot testing. These modules include: global temperatures, melting ice caps—rising sea levels, drought, human health, and volcanoes. We are seeking comments and suggestions from educators regarding how they use these materials in their classes with their students. We have aligned the modules to address the climate literacy standards and emerging science framework.

Global Climate Change Literacy for Educators [COMM SOUTH Table 5]

Russanne Low (UNL/IGES)

Demonstration of on-line modules and the web space.

What's the Biome? Map Activity [COMM SOUTH Table 6]

Lauren Allen, Mary Ann Steiner (Carnegie Museum of Natural History)

Use maps of real NASA data to determine the biome of various species!

Build Your Own Pyranometer -- Introduction to Inexpensive Climate Monitoring Instruments [Assembly Foyer]

David Brooks (Institute for Earth Science Research and Education)

Demonstration of inexpensive instruments students can build themselves for monitoring insolation and surface reflectance.

Tri-Agency Climate Education (TrACE) Catalog [COMM SOUTH Far Left]

Margaret Pippin (NASA) & Others

At the 2011 Tri-Agency CCE PI Meeting, NASA, NOAA, and NSF began to compile a matrix of educational resources (e.g., curricula, professional development models, literacy frameworks, video, assessment tools) being developed by individual projects represented at the meeting. This centralized clearinghouse resource continues to be updated, with increased interactivity being added. Stop by the TrACE Catalog table during the meeting to explore this resource, add new contributions, or update existing entries.



SHARE-A-THONS: SESSION II

SESSION DESCRIPTIONS

Model My Watershed: Modeling Local Hydrology in your Neighborhood [CAVALIER A]

Susan Gill (Stroud Water Research Center)

Model My Watershed is a cyber-learning tool that allows users to model local hydrology and to make changes to reduce runoff.

Video of TED Presentation: "The Great Immensity" [CAVALIER B]

Ellen Giusti (Self employed)

The Civilians, the theater company that developed "The Great Immensity" was invited to present an abbreviated version of the play at TED. Seeing the video will help attendees to decide if the play is appropriate for their venues.

Using Species Distribution Modeling to Predict the Effects of Climate Change on Biological Communities [CAVALIER C]

Vanessa L. Peters (University of Michigan)

Developed by the Center for Essential Science, SPECIES (Students Predicting the Effects of Climate In Ecological Systems) is a map-based species distribution modeling tool (SDM) that combines online geospatial occurrence data and IPCC future climate scenarios for teaching middle and high school students about the ecological impacts of climate change.

Beyond Weather and the Water Cycle [CONCOURSE 1]

Kimberly Lightle (The Ohio State University)

Structured around the seven essential principles of climate literacy, instructional and professional resources take elementary teachers and their students past the superficial understanding and teaching of weather and the water cycle to a solid understanding of climate. The resources support teachers as they integrate inquiry-based science and literacy instruction.

Climate Interpreter: Online Sharing and Digital Storytelling [CONCOURSE 2]

Scott MacKenzie (Monterey Bay Aquarium)

Climate Interpreter (<http://climateinterpreter.org>) is a website and community platform for climate change interpreters and educators to share resources, present their institutional and individual efforts, and connect with others.

How to Work with Key Influential Leaders [MEZZANINE 2]

Michel Boudrias & Scott Anders (University of San Diego)

Discussion on Process of Selection of Key Influentials, Interview framework, & Report on Key Influential Interviews.

Data-enhanced Investigations for Climate Change Education (DICCE) [COMM SOUTH Left]

Daniel Zalles (SRI International)

The two DICCE project online tools: DICCE Giovanni and DICCE Learning Environment, plus accompanying supports for teachers and students, will be demonstrated.



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AMS Climate Studies: A Dynamic Course Incorporating Real-World and Near Real-Time Climate Data [COMM SOUTH Right]

James Brey (American Meteorological Society)

AMS Climate Studies course website, containing Weekly Climate News, Current Climate Studies weekly investigations, and a series of climate links used by undergraduate college students. The new AMS Climate Studies Diversity Project, including professional development workshops for minority-serving institution faculty, will also be described.

Earth to Sky Interagency Partnership [COMM SOUTH Middle]

Anita Davis (Sigma Space Corp)

We will share the methodology we use to produce effective professional development, and several informal education products about climate change that our participants have created.

Climate Change Adaptation [COMM SOUTH Table 1]

Patrick Hamilton (Science Museum of Minnesota)

Roundtable discussion of what efforts are taking place around the U.S. regarding climate change adaptation

Frameworks to Guide K-12 Climate Science Education [COMM SOUTH Table 2]

Art Sussman (WestEd)

Current draft of the climate science education framework for the Pacific Islands region will be described. This Share-a-Thon will be a discussion of climate science education frameworks and standards in general, rather than focusing on the Pacific draft, which is being offered as one model to get the conversation going.

Climate Change Science and Solutions: Creating Innovative Education Tools for Native Americans and Rural Communities on the Colorado Plateau [COMM SOUTH 3]

Jane Marks/Joelle Clark (Northern Arizona University)

We plan to share our Carbon Cycle Game and our draft Colorado Plateau Carbon Connections curriculum.

Our Changing Planet [COMM SOUTH Table 4]

Roberta Johnson (NESTA)

I will share resources from the NSF-sponsored Our Changing Planet project (18 classroom activities, associated with NBC Learn videos).

Climate Literacy Network and CLEAN [COMM SOUTH Table 5]

Tamara Shapiro Ledley (TERC) and Susan Buhr (CIRES)

The Climate Literacy Network (CLN) is an active diverse community of stakeholders in improving climate literacy for all audiences. We will share the activities and website of the CLN and invite anyone who is interested to join. We will also facilitate participants interacting with the CLEAN portal and discuss ways that can use and leverage it, as well as engage with the CLEAN team to broaden the reach of the materials they are developing in their projects.



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Using MYNASADATA [COMM SOUTH Table 6]

JoEllen Carlson (University of South Florida)

This activity demonstrates how to use and gives teachers hands-on experience creating plots using the MYNASADATA portal. I will share this with handouts rather than hands-on.

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