Climate Change Education Partnership Alliance

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CCEP Alliance Quarterly Newsletter — Fall 2015

From the Alliance Office

Many CCEP Alliance Projects and their partners will present sessions and posters at the upcoming AGU Fall Meeting in San Francisco, December 14-18. The CCEP Alliance office will be compiling a list of the oral and poster sessions for distribution to the Alliance community.

The Alliance Office is working with PIs from each of the CCEP projects to produce the *Effective Communication Practices for Working with Educators, Scientists, Decision-makers and the Public* manuscript. The manuscript is currently in draft form and will be finalized during the upcoming fall virtual CCEP Council meeting. Along with the manuscript work, the December CCEP Council meeting will have a presentation from the CCEP Project Evaluators on impacts. Please look for more information on the virtual meeting in the coming weeks.

Sincerely,
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Project Updates

CEP has continued to advance its outreach activities and provide unique opportunities for community leaders to learn about climate change impacts by successfully conducting wildfire and climate tours. Led by CEP's partner, The San Diego Foundation, two tours were organized at the San Diego Gas and Electric headquarters to highlight how the San Diego region is working together to address regional climate change impacts. These tours, which were comprised of 30 local government, nonprofit, and business sector attendees, received overall positive feedback from attendees and are a great example of the strength of the project's capacity to deepen engagement of participants and community partners. These tours helped identify resources that may be of value to the other CCEP-II projects.

CEP continues to deepen relationships with the tribes in the San Diego area and develop public health partnerships. Recently, Dr. Silva Send presented on climate change impacts in the region to regional tribe members.

Above: CA LCC Tribal Climate Adaptation Workshop
Jill Sherman-Warne *(Left) Executive Director, Native American Environmental Protection Coalition*
Dr. Nilmini Silva-Send *(Right) Assistant Director Energy Policy Initiatives Center, Co-Principal Investigator Climate Education Partners, University of San*

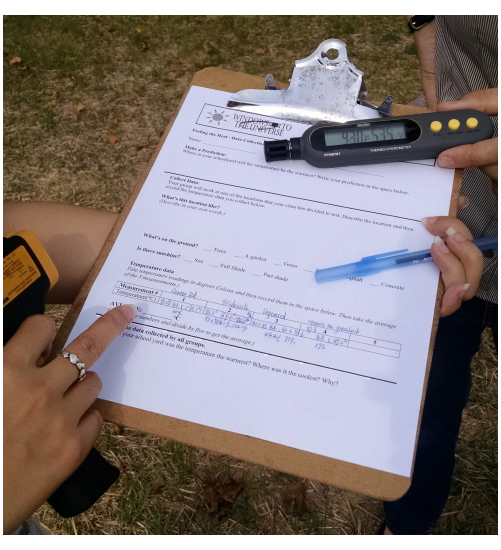
Additionally, CEP is working with partners to develop vulnerable populations maps showing climate change impacts on vulnerable populations. The maps will provide CEP and its partners with a unique resource and is a successful example of the opportunities for cross-sectoral collaboration within the health sector. Finally, CEP and its partners, in their continued effort to develop educational resources, have produced an informative video on climate change and wildfires in San Diego.

The Franklin Institute launched a six-week educational outreach campaign called "The Sweatuation" in their target neighborhood, Fishtown, to raise local awareness of climate change. The campaign was informed by local partners and created with the help of a local communications firm. The campaign featured comical images of the sweatier things citizens are all experiencing more of because of climate change, e.g. "swugs" (sweaty hugs). There is also a website where residents can go to learn more about how to live well in a hotter, wetter Philadelphia: www.TheSweatuation.com. Lastly, CUSP hosted a contest that encouraged people to post photos of their own "sweatuations" and add them on social media.

CUSP also delivered an eight-week program to senior citizens in one of their target Philadelphia neighborhoods. Each week, participants learned about climate impacts in Philadelphia, and delved deep into responses to these risks such as learning about green infrastructure, or keeping a healthy, asthma-free home. Local CUSP partners helped in the facilitation of the sessions.

The MADE CLEAR Higher Education team is piloting a new approach to introducing climate change into pre-service teacher education. Working collaboratively with instructors of methods courses for undergraduates who are training to become teachers, the team is providing instructors with mini-grants to support planning and implementation to use climate change as a focus when teaching pedagogical skills in their courses. The team is working with instructors at Delaware State University, Salisbury University, Towson University, and University of Delaware for fall semester 2015 and plans to continue the program in spring semester 2016. The instructors' experiences will provide a variety of models for including climate change in pre-service teacher education.

During summer 2015, eight groups of MADE CLEAR Informal Climate Change Education (ICCE) members developed and carried out climate change education projects customized to the needs and audiences at their sites. Projects included the development of a series of Wetlands and Climate Change classes and field studies for all sixth grade teachers and students in Talbot County, MD; a teacher workshop on alternative and renewable energy in Delaware that included a visit to a 2-megawatt wind turbine; a field-based training for informal educators on sea level rise and impacts of climate change on salt marshes; and a statewide park initiative in Maryland to provide signage linking pollenator habitat; a "grow, don't mow" program; and planting of new habitat to climate change.



Save the Date!

Dates TBA
CCEP Alliance Fall Meeting
Virtual

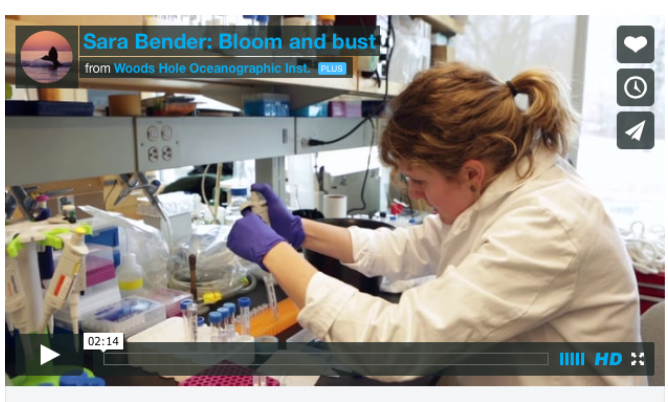
Monday
Dec. 14-18, 2015
AGU Fall Meeting
San Francisco, CA

If a Project would like something to be featured in the CCEP newsletter, please contact Romy Pizziconi. Submissions and photos from the Alliance are encouraged! To receive the CCEP newsletter and other climate change education resources via e-mail, please e-mail ccepalliance@etal.uri.edu and include "subscribe" in the subject line. Besides those who work directly on your Project, please encourage others to subscribe including Project partners and participants.

Project Updates Continued

NNOCCI partners have worked to develop several videos that apply lessons from strategic framing, the core communications theory they are using throughout their project. These videos are available for use by other individuals and groups interested in climate change education for public audiences. NNOCCI welcomes comments and feedback about how they can be used to support engaging conversations about climate change and how all Americans can participate in helping to reduce its root causes.

- FrameWorks Institute produced an introduction that provides an overview of the theory embedded into ten videos produced by the Association of Zoos and Aquariums (AZA).
- AZA's ten videos describe how wildlife is affected by climate change. Each focuses on one species common to a particular region of the United States in order to provide relevant examples for different communities. The videos are available through Climate Interpreter website.
- Woods Hole Oceanographic Institution has also produced four short videos that feature scientists explaining their research in ways that aim to be meaningful for public audiences.
  - Jeremy Owens explains how geology holds the story of Earth's history, which can help to predict the future.
  - Tristan Horner explains that the ocean is a rich tapestry of many different components rather than being uniform, and ocean chemistry can show how changes being measured today can help us to anticipate coming impacts.
  - Emily Moberg investigates how fisherman are responding to changes where fish species live and how these changes are linked to global climate change driven by burning fossil fuels.
  - Sara Bender studies phytoplankton species that produce much of the oxygen available for life on Earth and how those phytoplankton move carbon dioxide from the surface of the ocean to the bottom.



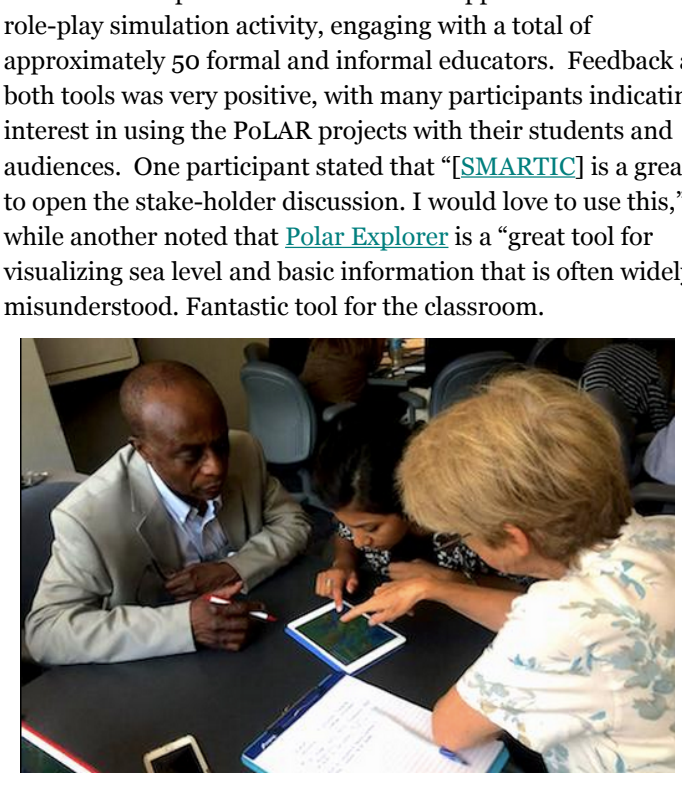
Biological oceanographer Sara Bender studies the importance of phytoplankton on life in the ocean--and elsewhere on the planet.

Together with the Hawai'i Institute of Marine Biology and Centers for Ocean Sciences Education Excellence (COSEE) Island Earth, PCEP held the second annual Climate Science Teacher Institute workshop on climate science for high school teachers. The event took place in Majuro from June 15th to 19, 2015, and it builds upon the success of the first workshop, held in Kāne'ohe, Hawai'i in 2014. The Majuro workshop was developed in collaboration with the Marshall Islands' Ministry of Education and was hosted at the College of the Marshall Islands.

Twenty-four high school science teachers from nine different high schools participated all five days. The topics from the workshop included: weather vs. climate; greenhouse gases; measuring the carbon cycle; El Niño/La Niña; sea-level rise; impacts of climate change on the Republic of the Marshall Islands' marine resources; local efforts by community organizations; and skills for critical analysis of media coverage. Teachers engaged in hands-on and interactive activities related to each topic that was presented, and they received both physical and digital copies of all instructional materials used in the workshop, including student handouts. PCEP evaluation surveys indicated that teachers were excited to have activities they could reproduce in the classroom with material available on island. Teachers also worked together to adapt lessons to their own classrooms, and they presented these lessons to their colleagues.

Other highlights of the week included weather observations, a snorkel trip to a local coral reef, and an intertidal reef walk to learn techniques for monitoring local coastal environments.

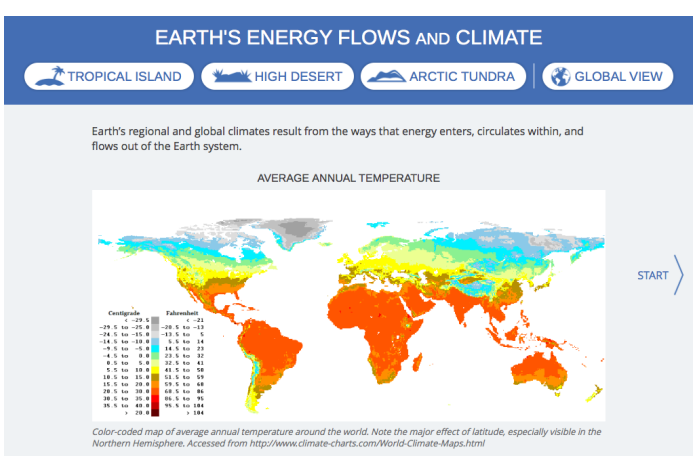
As part of the White House Office of Science and Technology Policy's Climate Education and Literacy Initiative, the National Oceanographic and Atmospheric Administration (NOAA) hosted a series of workshops for educators throughout the U.S. The PoLAR Partnership was invited to present hands-on activities and resources at the Climate Modeling and Simulation Workshop, held August 5 in Silver Spring, MD. PoLAR hosted four breakout sessions focused on the Polar Explorer data visualization app and the SMARTIC role-play simulation activity, engaging with a total of approximately 50 formal and informal educators. Feedback about both tools was very positive, with many participants indicating an interest in using the PoLAR projects with their students and audiences. One participant stated that "[SMARTIC] is a great way to open the stake-holder discussion. I would love to use this," while another noted that Polar Explorer is a "great tool for visualizing sea level and basic information that is often widely misunderstood. Fantastic tool for the classroom.



PoLAR has also recently launched a KickStarter fundraising campaign for the EcoChains: Arctic Crisis Card Game. Citizens and educators can help back this project and help spread the word by visiting KickStarter.

PCEP Climate Interactives

PCEP has produced three "interactives" that explain climate change in partnership with PBS television's WGBH. The first one is on the carbon cycle; the second is on global flows of energy that result in climate change; and the third is on the impacts of climate change on ecosystems and human systems. Each of these is geared towards Pacific Island audiences, but can be adaptable to mainland contexts. The interactives are acceptable for middle school to adult audiences and can be found on the PBS Learning Media website.



- Carbon Dioxide and the Carbon Cycle
- Earth's Energy Flows and Climate
- Impacts of Climate Change in the Pacific Region

CCEP Alliance Council Representatives

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