Thank you for joining us for the second Mid-Atlantic Climate Change Education Conference! MACCEC aims to convene formal and non-formal educators to share and learn about the latest trends in climate change education. This year there are four strands that we hope will shine a light on some of the great work happening in the realms of climate science, climate justice, climate workforce, and eclectic climate education. Longer term, it is our goal to continue to support practice and networking among educators working in this space. We hope to see many of you in person in 2022.

The 2021 Conference Planning Team
The 2021 Conference Planning Team

Diana Burich - New Jersey Sea Grant
Hannah Chamberlain - NOAA Chesapeake Bay Office
David Christopher - Delaware Sea Grant
Peggy Eppig - Goucher College/Maryland Agricultural Education Foundation
Krysta Hougen - NOAA Chesapeake Bay Office
Bethany Kline - Delaware National Estuarine Research Reserve
Lisa Ayers Lawrence - Virginia Institute of Marine Science (VIMS) / Virginia Sea Grant
Sarah Nuss - Chesapeake Bay National Estuarine Research Reserve in Virginia
Bart Merrick - NOAA Chesapeake Bay Office
Christopher Petrone - Delaware Sea Grant
Laurel Sullivan - Delaware National Estuarine Research Reserve
Elise Trelegan - NOAA Chesapeake Bay Office
Coreen Weilminster - Maryland DNR, Chesapeake Bay National Estuarine Research Reserve Maryland
Meet the MACCEC Planning Committee

Diana Burich
Hannah Chamberlain
David Christopher
Coreen Weilminster
Krysta Hougen
Elise Trelegan
Bethany Kline
Laurel Sullivan
Lisa Ayers Lawrence
Chris Petrone
Bart Merrick
Sarah McGuire
Making the Most of a Virtual Conference

- Login early to Zoom to allow time to download the software or updates, if needed, and check your sound and connection
- If you find you're having bandwidth or slow connection issues, consider joining by phone
- To avoid audio feedback, keep your mic on mute unless invited to turn it on
- Use the chat function to ask questions of the presenters
- Attend what you can but don't worry, all presentations will be recorded
- If you need to join by phone, refer to your Conference Agenda to find the best number based on your location and the Meeting ID and Passcode needed for each session to dial-in.

Join the Conference: Monday, June 28th
Join the Conference: Tuesday, June 29th
Join the Conference: Wednesday, June 30th
Join the Conference: Thursday, July 1
Schedule at a Glance

DAY 1

12:15 Arrive in Virtual Platform
12:30 Conference Welcome
12:45 Keynote
1:15 Climate Science Plenary
1:45 Break
2:00 Climate Science Breakouts
2:45 Break
3:15 Climate Science Breakouts
4:00 Break
4:15 Student Panel
5:00 Close of Day

Find the Student Track details starting on page 30

See page 10 for more details on speakers and sessions
All times in Eastern Daylight Time (EDT)
Schedule at a Glance

DAY 2

12:45 Arrive in Virtual Platform
1:00 Day 2 Welcome
1:15 Climate Justice Plenary
1:45 Break
2:00 Climate Justice Breakouts
2:45 Break
3:15 Climate Justice Breakouts
4:00 Break
4:15 Tunes and Trivia
5:00 Close of Day

See page 15 for more details on speakers and sessions
All times in Eastern Daylight Time (EDT)
Schedule at a Glance

DAY 3

12:00 Virtual Gallery Walk
12:45 Arrive in Virtual Platform
1:00 Day 3 Welcome
1:15 Eclectic Climate Ed. Plenary
1:45 Break
2:00 Eclectic Climate Ed. Breakouts
2:45 Break
3:15 Eclectic Climate Education Breakouts
4:00 Close of Day

See page 19 for more details on speakers and sessions
All times in Eastern Daylight Time (EDT)
Schedule at a Glance

DAY 4

12:45 Arrive in Virtual Platform
1:00 Day 4 Welcome
1:15 Climate Workforce Plenary
1:45 Break
2:00 Climate Workforce Breakouts
2:45 Break
3:15 Resource Share Breakouts
4:00 Conference Closing
4:15 Close of Day

See page 24 for more details on speakers and sessions.
All times in Eastern Daylight Time (EDT)
PHOTO CONTEST
Submissions Open June 23 - June 29 (5 pm)

Do you have some amazing photographs of climate change education, the impacts of a changing climate or how individuals and communities are responding to these changes? Enter your original material into the MACCEC - 2021 Photo Contest!

This year we will accept photos in 3 categories:
- Everyday Natural Beauty
- Effects of Climate Change
- Climate Education in Action

Education resources will be awarded to the top photo in each category and your photos will be featured in next year's MACCEC materials.

Don't forget to share about your conference experience on social media using the hashtag #MACCECingAChange.

Follow us on Facebook @midatlanticclimatechange
Day 1 Details

KEYNOTE

Christina Kwauk
Center for Universal Education at Brookings
Monday, June 28, 12:45-1:15 pm

ABOUT THE SPEAKER:
Christina Kwauk is a non-resident fellow in the Center for Universal Education at Brookings, and a 36x36 Transformation Fellow with the Wellbeing Economy Alliance, The Schumacher Institute, and the Collective Leadership Institute. Christina is a social scientist with a current interdisciplinary focus on education for climate action. She is an expert on girls’ education in developing countries, 21st century skills and youth empowerment, sport for development, and the intersections of gender, education, and climate change. Christina is a co-author (with Gene Sperling and Rebecca Winthrop) of What Works in Girls’ Education: Evidence for the World’s Best Investment, and has published numerous policy papers and academic articles on topics in climate change education, gender, health, and international development and education.

Previously, Christina led the Echidna Global Scholars Program at Brookings, a visiting fellowship aimed at building the evidence in girls’ education while building the research capacity, leadership, and professional networks of girls’ education leaders. She has also chaired the Girls CHARGE initiative, a Clinton Foundation global commitment to action, and advised the Obama Foundation’s Girls Opportunity Alliance, the UK Department for International Development’s Girls’ Education Challenge, and Save the Children UK.

Christina holds a PhD in Comparative and International Development Education from the University of Minnesota, a MA in Social Sciences from the University of Chicago, and a BS in Psychology from Sewanee: The University of the South.
ABOUT THE SPEAKER:
Dr. Dave Reidmiller is the Director of the Climate Center at the Gulf of Maine Research Institute (GMRI) where he leads an interdisciplinary effort to deliver end-to-end climate services to coastal and marine stakeholders throughout the region. Dr. Reidmiller recently served on the Agency Review Team for the White House Office of Science and Technology Policy during the Biden-Harris Presidential Transition.

Prior to joining GMRI, Dave held a variety of senior climate science policy positions with the federal government, including as Acting Director of the USGS’s Northeast and Southeast Climate Adaptation Science Centers (2019-20), Director of the Fourth National Climate Assessment with the U.S. Global Change Research Program (2016-19), and Chief Climate Scientist at the State Department (2011-16). Dave was an AAAS Science & Technology Policy Fellow with Senator Mark Udall, as well as a Mirzayan Fellow at the National Academies. He holds a Ph.D. in atmospheric sciences from the University of Washington and a BA in chemistry from Colgate University.
CHANGING THE SUBJECT
Eric Eckl, Water Words That Work, LLC

Among scientists, it is settled science that climate change is occurring, but among the public, it is a different story. Most surveys find that a substantial minority of the population, including many rural landowners, remain unconvinced or even hostile to the concept. And even when a landowner or donor does accept that climate change is occurring, that still may not be a compelling reason for them to support the work of the local nonprofit. The lack of public consensus presents a challenge to conservation organizations as they explain their mission and try to involve the community in the work. Should they include climate change information in their public messages, and if so, how?

SURVIVAL BY DEGREES... WITH STUDENTS!
Mary Helen Gillen, Pickering Creek Audubon Center
Cathy Bornhoeft, North Caroline High School

The National Audubon Society’s Survival By Degrees report warns that 389 North American bird species are facing significant threats due to climate change. Participate in a virtual investigation of local bird species and learn how high school students are using data from this report during their Meaningful Watershed Education Experience!

RESEARCH TO TRANSLATION
Abigail Sisti and Derek Detwiler, Virginia Institute of Marine Science

Climate change has the ability to alter marine ecosystems by affecting resident species, but simultaneously these habitats could store excess carbon rather than releasing it to the atmosphere. VIMS graduate students will highlight current research in this area, and their translation of science to education products for the classroom.
EMPOWERING YOUTH ACTION AND NAVIGATING CHALLENGES TO CLIMATE CHANGE EDUCATION
Andrea Drewes, Rider University
This session highlights the New Jersey Student Climate Challenge, a pilot program that seeks to support students and teachers to avoid climate change education obstacles and to engage in youth-driven climate action projects. Lessons learned from our ongoing efforts to encourage climate-focused digital storytelling and action projects will be shared.

CLIMATE CHANGE: CAUSES AND CONSEQUENCES
Dean Goodwin, Odyssey Charter School
A curriculum will be described that has been developed for use in both the virtual and in-person classroom setting. It describes the scientific facts regarding global warming and climate change in an easy to understand narrative. Topics that are addressed in the course will be shared in the presentation.

VIBRIO AND HUMAN HEALTH IMPACTS FROM CLIMATE CHANGE
Ava Ellett and Detbra Rosales, Cooperative Oxford Laboratory
How does climate change impact the distribution and abundance of pathogenic bacteria in the water? Join us to learn how rising sea temperature is promoting the spread of Vibrios in northern areas and how intense rain events can lead to an increase in Vibrio abundance.
STUDENT PANEL
Monday, June 28, 4:15 - 5:00 pm

EVAN BORODIN
Evan Borodin is a student advocate, working as part of the Howard County Conservancy’s Climate Change Institute, where he focuses on enacting legislative change through the Maryland General Assembly. As part of his efforts, Evan leads testimonial, advocacy, outreach, and awareness efforts.

ELA GOKCIGDEM
Ela Gokcigdem is a current sophomore at Babson College studying Environmental Sustainability and Business. After witnessing the ecological collapse of her hometown in Turkey, she has devoted herself to the sustainability field. With entrepreneurship as the core driver of her environmental activism, she has created her own environmental curriculum for her county which utilizes empathy, storytelling, and a high-schoolers point of view.

APURVA IYENGAR
Apurva Iyengar is an 18 year old changemaker focused on creating unity in the Gen Z environmental movement. She is an EarthEcho International Youth Leadership Council Member and the founder of Youth.ify Apurva is currently on a gap year working full-time on Youth.ify & other projects before joining the Tufts University Class of ‘25 where she’ll be pursuing a degree in Environmental Science & Engineering.
Day 2 Details

CLIMATE JUSTICE PLENARY

Tamara Toles O'Laughlin
National Climate Strategist
Advocate for People and Planet
Tuesday, June 29, 1:15 - 1:45 pm

ABOUT THE SPEAKER:
Tamara Toles O'Laughlin is an international climate strategist and environmental advocate focused on people and planet. Her niche in environmental work is developing capacity building programs and creating multimedia campaigns to dismantle privilege and increase opportunities for vulnerable populations to access healthy air, clean energy, and a toxic free economy at the local, regional and national level.

Tamara casts a wide net in service to the community. Among her activities, she is a co-chair of the Green Leadership Trust, which builds a more powerful environmental movement by expanding the impact and leadership of people of color and indigenous people serving on US environmental nonprofit boards. She is a member of the World Economic Forum, National Cities executive working group. Additionally, she has just concluded a two-year term as Chair of the Metropolitan Washington Council of Governments, Air and Climate Public Advisory Committee. Tamara also serves as the chairwoman of the Board of Directors of Women’s Voices for the Earth based in Missoula, Montana. Women’s Voices disrupts industry standards by forcing ingredient disclosure and the elimination of toxic chemicals from personal care products.

Tamara was recently appointed as the President and CEO of the Environmental Grantmakers Association. She graduated from the Vermont Law School in 2009, with a Juris Doctor and Master of Environmental Law and Policy with a concentration in energy generation and carbon constraint.
CLIMATE JUSTICE SESSION 1
Tuesday, June 29, 2:00 - 2:45 pm

ACADEMIA DE DEFENSORES DEL LA CUENCA
Abel Olivo, Defensores de la Cuenca
Hannah Mico, River Network
Defensores de la Cuenca engages Spanish-speakers to build knowledge through shared experiences and build a network of leaders in the Latino community. In partnership with River Network, Defensores is creating a leadership program called “La academia de Defensores de Cuenca” that incorporates culturally responsive content and opportunities.

CLIMATE EDUCATION AND ENVIRONMENTAL JUSTICE: IN AND OUT OF THE CLASSROOM
Lolita Kiorpes, North Point High School
Gain important insight on how to easily Integrate Climate Education and Environmental Justice gently into the Life Sciences using project-based and class-tested activities. Give students ways to understand events, make changes, be a voice for changing the current climate dilemma and environmental injustices.

YOUTH AS ALLIES AND PARTNERS FOR CLIMATE ACTION
Jen Krester, The Wild Center
Seeing youth as allies for climate change solutions is critical to successfully building and educating for sustainable communities. The Wild Center will present a model of youth convenings around climate change that is scalable and replicable in a variety of settings from schools to museums to NGOs, nationally and internationally.
CLIMATE JUSTICE SESSION 2
Tuesday, June 29, 3:15 - 4:00 pm

BUILDING CLIMATE AMBASSADORS THROUGH EDUCATION AND ADVOCACY
Julieta Rodrigo and Karolyn Burns, The CLEO Institute
The CLEO Institute is a 501(c)(3) non-profit, organization exclusively dedicated to climate crisis education and advocacy. Founded in 2010, we work with communities across Florida to build climate literacy. From schools, to municipalities, community leaders, and our general public, we educate and empower them to demand climate action, ensuring a safe, just, and healthy environment for all.

GLOBALISM AND RESTORATIVE JUSTICE: SHELL OIL IN THE NIGER DELTA
Natalie Stapert, ClimateChangeEducation.org
Participate in a current events role play centered on the Black Lives Matter principles of globalism and restorative justice. This teaching activity engages students in critical thinking around the experience of Black people globally and the impact of oil and fossil fuel consumption on people’s land and livelihood.

CLIMATE CHANGE EDUCATION ANCHORED IN THE LOCAL COMMUNITY
Michael Heinz, New Jersey Department of Education
Focusing learning tasks on local community responses allows individuals to make personal connections to climate change in positive and constructive ways, rather than dwelling on it as a looming disaster.
TUNES AND TRIVIA
Tuesday, June 29, 4:15 - 5:00 pm

DJ Dave (aka David Christopher) has been creating a playlist of awesome tunes exploring climate and environmental education related themes that will serve as the backing track for a rousing round of climate change themed trivia.

Join us to unwind, laugh and learn! Some fantastic educational resources will be awarded to the top 3 contestants, including a Plume Lab Flow air quality tracker.
VIRTUAL GALLERY EXPERIENCE
Wednesday, June 30, 12:00 - 12:45 pm

Join us in Kumospace (an easy, immersive and fun digital space) for the Virtual Gallery Experience and networking event. This event will feature local artists showcasing their work and sharing about their projects, inspiration and the role creative outlets play in climate education and outreach. Attendees are welcome to come while enjoying their lunch and will be able to go in and out of rooms as they please. There will be an opportunity to hear from the artists themselves at the following times:

- Laura Guertin: 12:00 - 12:10
- Karen Romano Young: 12:15 - 12:25
- Michael Snyder: 12:30 - 12:40

Featured artists:

- **Michael Snyder** - Mike is a local photojournalist and filmmaker who uses his combined knowledge of visual storytelling and conservation to create narratives that drive social change. In this exhibit, Mike will feature images from and discuss his Coming Coast project.

- **Laura Guertin** - A professor of earth science at Penn State Brandywine with a background in marine geology and geophysics. A fellow of the Geological Society of America and a blogger with the American Geophysical Union (GeoEd Trek), she explores innovative ways to communicate science to nonscientists inside and outside the classroom. Laura will be sharing about her quilting and front door science communication projects.

- **Karen Romano Young** - A writer, artist, deep-sea diver, and polar explorer, crazy about books, science, kids, and raccoons. Karen will be showcasing her science comics about climate change, the world around us and the many things that call it home.
VIRTUAL GALLERY EXPERIENCE
Wednesday, June 30, 12:00 - 12:45 pm

Kumospace Instructions:
- Go to the following website: https://www.kumospace.com/abc1224
- Click the blue “continue without an account button” below the create/join buttons
- Allow Kumospace to use your computer’s microphone and camera (if prompted)
- Type your name in the grey name box and click the yellow “Join” button
- Click on the room you wish to enter
- Zoom in and out to see the photographs and others in your room
- Use your arrow keys or click in an area in the room to move around
- See and talk with others around you as you move closer to them
- Use the navigation bar at the bottom of the screen to: chat, turn camera and video on/off, exit room
Day 3 Details

ECLECTIC CLIMATE EDUCATION PLENARY

SLOW MOTION TRAGEDY: TELLING NUANCED STORIES WITH IMPACT
Greg Kahn
American Documentary Fine Art Photographer
Wednesday, June 30, 1:15 - 1:45 pm

ABOUT THE SPEAKER:

Kahn’s work concentrates on issues that shape personal and cultural identity. His Pulitzer Prize nominated project, “It’s Not a House, It’s a Home,” explores how the foreclosure crisis in Florida defined a new class of homelessness. His recent project in Cuba considers how governance molds individuality. And in Kahn’s ongoing project 3 Millimeters, the quiet depletion of land is the catalyst for the evolution of the inhabitants’ identity.

Kahn has worked for clients such as The Atlantic, National Geographic, and Smithsonian Magazine. In 2011, Kahn was a finalist for the Pulitzer Prize for his work on the foreclosure crisis in Florida.
ECLECTIC CLIMATE EDUCATION SESSION 1
Wednesday, June 30, 2:00 - 2:45 pm

CLIMATE CHANGE EDUCATION AT THE FRONT DOOR (LITERALLY) THROUGH SCIENCE ART
Laura Guertin, Penn State Brandywine

The front door of a house can serve as a location for science education, including the sharing of climate solutions, through text and artistic creations that catch the attention of those walking by. Learn how one instructor is teaching residents in her community about earth science with crocheting and quilting.

WHAT MAKES CLIMATE EDUCATION FUN?
Vivian Li, Climatedu.org
Esther Tang, Climatedu.org

What makes climate education fun? From climatedu, an online climate course for middle and high school students, we’ll reveal key takeaways from our course-building journey. Whether through utilizing captivating design, focusing on solutions, or incorporating accessible narratives, participants will emerge with a fresh outlook on educating their community about climate.

COOKING TO CONNECT - FOOD THROUGH A SUSTAINABILITY LENS
Jessica Cordaro, Reach Cyber Charter School

Take a bite into a project-based learning experience that takes place in the kitchen. See how one group of students learn cooking skills, content knowledge and how to create a sustainable future while examining the impact of food on the environment, economies, and others.
PROMOTING CLIMATE LITERACY BEYOND STEM DISCIPLINES
Bosiljka Glumac, Caroline Davock, Julia Herzfeld, and Carol Berner, Smith College

“Climate in Arts & History” (www.science.smith.edu/climatelit/) aims to promote climate literacy across disciplines by connecting various aspects of human society and culture to specific climate events and explaining the science behind them. The information is organized in art, history, languages, literature and music subject areas.

REDUCING CARBON EMISSION ESCAPE ROOM
Maddalena Nesbit and Helen Dwyer, St. Charles High School


OUR PLANET, OUR FUTURE - D.C. YOUTH FILMS ABOUT CLIMATE CHANGE
Rebecca Davis and Carolina Riveros-Ruenes
MWCOG- Clean Air Partners

How did DC engage students to learn about the science of climate change while promoting youth voice? Come to this session and learn about the DC 1 min CC film challenge and how a DC middle school teacher used the challenge to anchor their climate change EXPEDITION BIG IDEA.
Day 4 Details

CLIMATE
WORKFORCE
PLENARY

Briana Warner
Atlantic Sea Farms
Thursday, July 1, 1:15 - 1:45 pm

ABOUT THE SPEAKER:
Briana has dedicated her life to doing well by doing good. Since taking over as CEO at Atlantic Sea Farms in 2018, she and her team have expanded the company to work with 24 partner farmers from Portland to Eastport. Bri has followed a winding path that brought her to kelp - including serving several tours as a diplomat in the U.S. Foreign Service, starting and selling a wholesale bakery in Portland focused on pies with an international flair and employing recent refugees resettled to the area, and creating the first Economic Development programming suite at the Maine-based Island Institute.

She is an avid gardener, an obsessive cook, and a proud mother of two rad sons. In 2020, Bri was named an Eating Well Magazine Food Hero, awarded the Specialty Foods Association's Business Leadership Award, and had the honor of sitting on several state, national, and global aquaculture and business policy boards.
**CLIMATE WORKFORCE SESSION**
Thursday, July 1, 2:00 - 2:45 pm

**HELPING STUDENTS CREATE P.O.W.E.R.**
Larissa Johnson, Montgomery County Department of Environmental Protection
Diane Lill, Audubon Naturalist Society

P.O.W.E.R. stands for Peer Outreach with Energy Resources and is an innovative partnership program of the Montgomery County Department of Environmental Protection and Audubon Naturalist Society that trains teens to provide fun, interactive presentations at Montgomery County Public Libraries on energy!

**THE FUTURE IS GREEN**
Mary Westlund and Elana Kellner, Maryland Association for Environmental and Outdoor Education

Using the Green Jobs Project Learning Tree Curriculum, we will explore ways to engage and interest learners in pursuing a green career, discuss the benefits of green forestry jobs and evaluate the role these jobs will play in climate change education.

**PREPARING STUDENTS FOR TOMORROW'S GREEN CAREERS: CAREER TECHNICAL EDUCATION, APPRENTICESHIPS, AND COMMUNITY COLLEGE**
Luke Rhine, Delaware Department of Education

In 2015, Delaware joined the Pathways to Prosperity Network to create a statewide system of career pathways. Today the Delaware Pathways team works across various education, community, and workforce partners to employ a tailored customer service model that highlights consumer voice within the design of a permeable education to employment system to confront issues of systemic inequity. Participants will learn how Delaware is working to bridge the component parts of our education, workforce, and economic development systems as well as what work lies ahead.
RESOURCE SHARE SESSIONS
Thursday, July 1, 3:15 - 4:00 pm

Learn about resources you can access and use now to support your climate change education programming. There are three Resource Share rooms to choose from and in each room you will learn about three different resources. Find the resource mix that works best for you!

Featured Resource

Are you interested in learning more about climate change? climatedu is an online mini-course about climate science and sustainability made by students, designed by students. Our mission is to bring climate education opportunities to students everywhere, and we are excited to invite middle and high schoolers to enroll in CAMP CLIMATEDU!

Our free, virtual camp will run June 23-August 25, every Wednesday from 4:30-6 PM. We’ll be exploring our online course, hearing from some amazing and interesting speakers, and doing some fun activities! Visit climatedu.org/camp to learn more and register. If you have any questions, contact us via our website, through Instagram or Twitter @climateduteam, or email us at hello@climatedu.org. We look forward to seeing you soon!
RESOURCE SHARE 1
Thursday, July 1, 3:15 - 4:00 pm

BRINGING NOAA'S ENVIRONMENTAL LITERACY PROGRAM TO NEW AUDIENCES WITH COLORING AND ACTIVITY BOOKS
Maggie Allen and Maggie Beetstra, NOAA Office of Education
NOAA’s Environmental Literacy Program’s Theory of Change (ToC) defines the new field of community resilience education and identifies pathways through which environmental literacy can make communities more resilient to climate change impacts. We will discuss the ToC and our efforts to translate it into formats more approachable to youth.

HURRICANE RESILIENCE: A CURRICULUM TO HELP HIGH SCHOOL STUDENTS ENVISION THE FUTURE OF COASTAL COMMUNITIES AS CLIMATE CHANGES AND SEA LEVEL RISES
Lisa Gardiner and Melissa Rummel, UCAR Center for Science Education
An NGSS-aligned curriculum for hurricane-prone regions, Hurricane Resilience helps high school students explore how coastal risks are increasing as climate change strengthens hurricanes and tropical storms and produces more rainfall, how sea level rise increases the risk, and how our actions can help us be less vulnerable and more resilient.

THE STORY OF YOUR AIR: USING DATA TO DRIVE A STUDENT-LED EXPLORATION OF THE AIR THEY BREATHE
Megan Arnett, University of California Berkeley
Air quality is a universal experience that we are not always aware of, but can have a dramatic impact on everything from where we live to how we sleep. We present resources for exploring local air, and how to use these to engage students in their personal climate change narrative.
THINKING LIKE A DECISION MAKER
Kate Vogel, Maryland Department of Natural Resources

Thinking like a decision maker is a program where students are assigned a country and have to research the greenhouse gas emissions, economic sectors, natural resources and ecosystem services of said country. They will then negotiate with other countries on whether or not to ratify climate change agreements.

INTERACTIVE CLIMATE SOLUTIONS WORKSHOP USING EN-ROADS
Nathan Mills and Jillian James, MIT Alumni for Climate Solutions

En-ROADS is a transparent, freely-available policy simulation model that provides interested people of all levels the ability to independently explore the likely consequences of policies for energy, economic growth, land use, and more, with the goal of improving their understanding of the dynamics of change in such a complex system.
WHAT WILL CLIMATE CHANGE MEAN FOR MY NEIGHBORHOOD?
Margie Turrin and Laurel Zaima, Lamont-Doherty Earth Observatory of Columbia University

Climate change impacts us all, yet not all in the same ways. We will dig into the ‘National Climate Assessment’ and tools like those from the ‘US Climate Resiliency Toolkit’, to explore data uncovering local impacts from global climate change and review resources for building a more resilient future.

USING LARGE CLIMATE DATA SETS TO EXPLORE LOCAL CHANGE
Meredyth Sullivan, Gulf of Maine Research Institute

How do changing ocean temperatures affect species habitats? In this session we will use the Gulf of Maine Research Institute’s (GMRI) online interactive, which highlights complex NASA data sets, to investigate how ideal temperature habitats for Black Sea Bass has changed over time. Explore how to translate this model to investigate with students how the species and ecosystems in your region may be affected by warming waters.

SANDS-ON SCIENCE: MAKING MODELS TO TEACH COASTAL CLIMATE CHANGE
Marc Rogoff, NJ Department of Environmental Protection

Examine techniques used to create scale models to use as resources for climate change education, focusing on Coastal Resiliency, Sea-Level Rise, and Ocean Acidification. Finished models will be used to demonstrate applicable lessons.
Student Track

DAY 1

12:15 Arrive in Virtual Platform
12:30 Conference Welcome
12:45 Keynote
1:15 Student Track Welcome
1:25 Networking Sessions
1:45 Truth in 10
2:00 Break
2:10 Student Presentations
3:45 Closing Activities
4:00 Break
4:15 Student Panel
5:00 Close of Day

See page 31 for more details on speakers and sessions
All times in Eastern Daylight Time (EDT)
STUDENT TRACK PRESENTERS
Monday, June 28, 2:10 - 3:45 pm

LEGISLATIVE PRIORITY 2021: AMPLIFYING THE STUDENT VOICE
Maya Santhanman, Junior at Howard County Public Schools
Join us during the “Legislative Priority 2021: Amplifying the Student Voice” presentation, to learn about what youth environmental legislative advocacy is, why policy is important in your advocacy journey, and how students can have a special influence on climate legislation. Drawing on the experiences of current student advocates, participants will be guided through concrete steps to get involved and help tackle the current climate crisis.

DIFFICULT CONVERSATIONS WITH EFFECTIVE MESSAGING: HOW TO DISCUSS CLIMATE CHANGE
Mansi Patel, Freshman at University of Maryland College Park
This presentation will address how to use communication strategies and accurate information when discussing climate change with others. It demonstrates a youth perspective on the tactful and encouraging rhetoric that is necessary to engage in climate conversation, and will reflect on the personal experiences of Mansi Patel and the Howard County Climate Change Institute.
WHAT MAKES CLIMATE EDUCATION FUN?
Vivian Li, Montgomery County Public Schools & Climatedu

What’s so great about a climate course built for students, by students? As climatedu’s founder, I’ll delve into why I chose to embark on my course-building journey and highlight the design aspects that make our course so unique. We’ll discuss what makes us (as students) feel engaged when talking about climate change, and explore the course platform together.

CLIMATE ACTION: SUSTAINABLE SURVIVAL KITS
Maya Weikert and Juno Owens, Bmore Beyond Plastic

The student group Baltimore Beyond Plastic are creating “Sustainable Survival Kits” and resourcing the unsheltered community of Baltimore with these practical kits. Inspired by the phrase “we only move as fast as our slowest soldier,” BCPS student Juno recognized this need in their own community and understands that people can’t be a part of the climate solution if their basic needs aren’t yet met. Learn about this project and tips for launching a community-based project of your own.
### CONTINUING CLIMATE CHANGE EDUCATION

**DELAWARE SEA GRANT ENGAGE AND EXCHANGE WORKSHOPS**
**GREEN CAREERS: WORKING FOR A SUSTAINABLE FUTURE**

*Wednesday, July 21, 2021 (Virtual)*
*1:00 – 4:00 PM*

It is important to prepare today’s students to meet future environmental challenges while preparing them for an ever-changing workforce. Join Delaware Sea Grant as we explore green careers, which are jobs that support the economy and benefit the environment or conserve natural resources. In this workshop, participants will learn about green careers from people in the industry and will hear about the opportunities and challenges for green careers in Delaware and beyond. Participants will also will explore the skills and competencies needed for students to take part in the future green workforce.

[Learn more and register for free!](#)

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**TEACHING CLIMATE CHANGE: CLIMATE CHANGE SCIENCE AND STORYTELLING**

Teaching Climate Change: Climate Change Science and Storytelling" is a free, self-paced course on NOAA’s [Chesapeake Exploration](#). Explore climate change evidence, earth and climate systems science, climate change impacts to the natural and human systems and, climate change solutions. Throughout the course, participants will develop a story to connect climate change to their student’s lives and community. Upon completion, participants will be able to earn a certificate for 15 clock hours, 6 Act 48 credits for Pennsylvania, or 1 Continuing Professional Development credit for Maryland.
EDUCATOR WORKSHOP: SUMMER INSTITUTE FOR CLIMATE CHANGE EDUCATION
July 26-30, 2021 (Virtual)
NOAA’s Environmental Science Training Center and Howard County Conservancy have teamed up to host the mid-Atlantic cohort for the Summer Institute for Climate Change Education in partnership with Climate Generation, NOAA’s Climate Program, and the Wild Center’s Youth Climate Program. This three-day experience, designed just for teachers, builds off of the themes explored during the Mid-Atlantic Climate Change Education Conference and provides the opportunity for networking both nationally and locally. Days one and three are structured to allow time for learning and national networking, while day two will focus on place-based climate change education with a specific focus on health and community resilience. Throughout the Institute, teachers will gain the skills, tools, and resources to teach climate change concepts and empower students in all subject areas. Learn more and register on Climate Generation’s website.

EDUCATOR WORKSHOP: TEACHERS ON THE ESTUARY - SCIENTIFIC INQUIRY IN THE FIELD
July 26 - 30, 2021 (Virtual)
This dynamic online course will ask you to take your learning outside to conduct investigations of your local environment around climate change and human health. Investigations will be supported/facilitated by community leaders, scientists, and educators from NOAA, the Chesapeake Bay National Estuarine Research Reserve, and the Chesapeake Bay Foundation. This course is designed to model a Meaningful Watershed Educational Experience (MWEE) through participant-driven field experiences and authentic research. Learn more and register at the Chesapeake Bay Foundation’s website: Teachers on the Estuary.