COP28 VIRTUAL OCEAN PAVILION EXHIBITS

MANGONE CLIMATE CHANGE SCIENCE AND POLICY HUB — BUILDING BRIDGES FOR INNOVATION



Description

CONNECTING CLIMATE AND OCEANS SCHOLARSHIP, EDUCATION, AND COMMUNITIES

Climate change is a whole-of-society issue, and it needs to be a whole-university issue as well. More than 150 faculty across all seven colleges at the University of Delaware engage in teaching, scholarship, or service related to climate change, and many more staff and students work on climate-related topics through institutes, centers, and projects on campus, in the community, and around the world.

In 2021, the Center for the Study of Marine Policy, founded by international marine legal scholar Gerard J. Mangone, transitioned to the Mangone Climate Change Science and Policy Hub, recognizing the crucial connection between oceans and climate change. The Hub serves to facilitate connections across the University of Delaware and with off-campus partners. Our work is structured around three main goals and is shaped throughout by three core values. You can read more about these goals and values in our strategic plan.

VALUES GOALS

JOY & CREATIVITY

DIVERSITY, EQUITY & INCLUSION

CLIMATE JUSTICE

TRAIN CLIMATE LEADERS

A – Expand and improve student educational opportunities, formal and informal

B – Provide skillbuilding opportunities

BUILD INTERDISCIPLINARY NETWORKS

A – Promote climate change engagement as a whole-University endeavor

B – Facilitate engagement between on- and off-campus partners

Position UD as a Climate Leader

A – Amplify climate work across the University

B – Support UD efforts to demonstrate longterm commitment to climate action

As a Hub, we connect research centers, institutes, departments and other initiatives, such as the <u>Center for Research in Wind</u>, which has made Delaware a powerhouse in offshore wind energy and energy justice research; the <u>Center for Environmental Monitoring and Analysis</u>, which provides climate and weather expertise to the state of Delaware and its residents; the <u>Island Policy Lab</u>, focused on decarbonization transitions in island nations; and the <u>Coastal Resilience Design Studio</u>, which brings together landscape architects and scientists to help communities understand and design solutions for coastal challenges. The <u>Ratcliffe Eco-Entrepreneurship Fellows</u> program held a design sprint this fall where students learned about design thinking and applied entrepreneurial approaches to envision solutions to climate change problems like coastal flooding. The <u>Delaware Environmental Institute</u> has a new documentary on the dangers of saltwater intrusion for marshes and aquaculture (see <u>Salted Earth</u> on our video tab).



As an institution of higher education, we are committed to developing the next generation of climate leaders, scientists, and innovators. We support a Climate Scholars enrichment program for undergraduates and a Climate Fellows graduate student organization. With support from the University Corporation for Atmospheric Research, we hosted a workshop on <u>Inclusive and Creative Climate Education</u> this fall, connecting middle and high school educators, two- and four-year colleges, museums, environmental non-profits and government offices in an active discussion around tools to support climate education. As a group, we are committed to building more diverse faculty and student cohorts, incorporating additional perspectives and ways of knowledge, and supporting the mental and emotional health of our educators and students as they learn about the climate crisis.





The National Science Foundation and the Kaleta A. Doolin Foundation provided seed funding through the <u>Oceans Decade Champion</u> project to promote women leadership in ocean science. In line with our mission to also promote creative and joyful cross-disciplinary engagement, we are hosting a <u>Climate Change Video Game Jam</u> — a video game design competition open to college students around the United States. In a three-week sprint, students will develop games that address oceans, climate change, and women leaders.

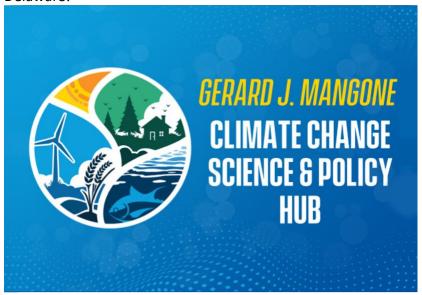


Of course, the University of Delaware engages in numerous research activities related to oceans and coasts. For example, the <u>Coastal Hazards</u>, <u>Equity</u>, <u>Economic prosperity and Resilience</u> (<u>CHEER</u>) Coastlines and People Hub, at the <u>Disaster Research Center</u>, is a five-year initiative, funded by the National Science Foundation, to combine engineering, hazards modeling,

economics, policy, and sociology to model the effects of extreme events and potential efforts to build resilience.

University of Delaware students, faculty, and staff also work extensively to support communities. Faculty and staff at the <u>Institute for Public Administration</u>, for example, work closely with state government and the <u>Resilient and Sustainable Communities League</u> to support coastal communities in managing their shorelines and protecting residents and ecosystems. <u>Delaware Sea Grant</u> has been developing an <u>oyster hatchery</u> and working with state officials to grow Delaware's aquaculture industry. And University of Delaware students and researchers have been exploring the economics of aquaculture and legal reforms that would support a new kelp industry.

These are just a few of the many exciting projects happening now. Please ask us questions – either during our live chat sessions, through the Q&A function, or at our live event on November 30th – as we are eager to tell you more about the amazing things happening here in Delaware!



Links

- 1. Mangone Climate Hub https://sites.udel.edu/climatechangehub/
- 2. Ocean video gam jam https://www.climategeekology.com
- 3. Oceans research (CEOE) https://www.udel.edu/academics/colleges/ceoe/research/
- 4. Climate scholars https://sites.udel.edu/climatechangehub/education/
- 5. Creative education workshop https://sites.udel.edu/climatechangehub/icce-workshop/
- 6. Our live event https://cop28oceanpavilion.vfairs.com/en/agenda-page
- 7. LinkedIn https://www.linkedin.com/showcase/mangone-climate-change-science-policy-hub/

Videos

 New challenges for the world's fisheries https://www.youtube.com/watch?v=KX7z DFiwyc

- Rising tides: are we ready? https://www.youtube.com/watch?v=5dWcDlsC4cA&list=PLjtW_T3jHflpT1zpRC8Vd1xsv7 L54hieV&index=22
- 3. Penguin research using robots? https://www.youtube.com/watch?v=nN6MnSdnzhM
- 4. Geek toolkit for ocean visions https://www.youtube.com/watch?v=E7i2 CYtkTk
- 5. Student research on coastal wetlands https://vepimg.b8cdn.com/uploads/vjfnew/10412/content/images/1700017497wetlandsresearchthumbnail-png1700017497.png
- 6. Language of the seafloor https://www.youtube.com/watch?v=xMozB4BZpAU
- 7. Sea talk: sand sharks https://www.youtube.com/watch?v=KxljPli1yts
- 8. Living shorelines for sea level rise https://www.youtube.com/watch?v=N4yxWqmiQIY
- 9. Citizen science coast snap https://www.youtube.com/watch?v=Oys1qTQQx I
- 10. Salted earth https://vimeo.com/816745650?share=copy

Documents

- A case study from UK waters
 https://vepimg.b8cdn.com/uploads/vjfnew/10412/content/docs/1700247053mpas-case-study-ndash-climate-smart-mpas-pdf1700247053.pdf
- 2. Greater Farallones National Marine Sanctuary kelp recovery program https://vepimg.b8cdn.com/uploads/vjfnew/10412/content/docs/1700247368blue-carbon-in-mpas-case-study-greater-farallones-pdf1700247368.pdf
- 3. Waquoit Bay National Estuarine Research Reserve bringing wetlands to market https://vepimg.b8cdn.com/uploads/vjfnew/10412/content/docs/1700247527blue-carbon-in-mpas-case-study-waquoit-bay-pdf1700247527.pdf