



ANNUAL REPORT 2025

## UCI Staff

**Thomas Herrington, Ph.D.**

*Acting Director*

**Amanda Boddy**

*Marine Biology Technician*

**Meredith Comi**

*Coastal Resilience and  
Restoration Practitioner*

**Erin Conlon '20**

*Community Science Coordinator*

**Rachel Forbes '11M, Ph.D., MSW**

*Community Engagement and Outreach Specialist*

**Christopher Haak, Ph.D.**

*Research Scientist*

**Richard Kane '23**

*Resilience and Outreach Project Lead*

**Aliya Satku**

*Administrative Assistant*

**Karl Vilacoba**

*Communications Director and Ocean Data Manager*

## Fellows

**Tony MacDonald, Esq.**

*Senior Ocean Policy Fellow*

**Heather Korzun**

*Community Engagement Fellow*

**Jay Odell**

*Fisheries and Ocean  
Conservation Fellow*

## Affiliated Faculty

**Jason Adolf, Ph.D.**

*Endowed Professor of Marine Science*

**Peter Jacques, Ph.D.**

*Rechnitz Family/Urban Coast Institute Endowed Chair  
in Marine and Environmental Law and Policy*

## Faculty Residency

**Megan Delaney, Ph.D., LPC**

*Ecopsychologist in Residence*



## OUR MISSION

To serve Monmouth University and the public as a forum for **research, education, and collaboration** in the development and implementation of science-based policies and programs that support stewardship of healthy, productive, and resilient coastal ecosystems and communities.



# Contents

Letter	4
2025 Heidi Lynn Sculthorpe Scholars Summer Research	6
Meet the UCI's 2025-26 Endowed Scholarship Recipients	8
Living Laboratories: Protecting Coasts with Oyster Reef and Green Infrastructure Projects	10
Community Science in Action: eDNA Sampling and CLONet	12
Students Create Mid-Atlantic Ocean Data Portal App for iOS, Android	14
Celebrating Champions of the Ocean and a UCI Milestone	16
From Classrooms to COP30: The UCI's Climate Work in 2025	18
'Ocean Bodies,' A Solo Exhibition by Kimberly Callas	20
Transition at the UCI	22
2025 in Pictures	24
2025 Expenditures by Source	26

# Greetings from Our Acting Director ✨

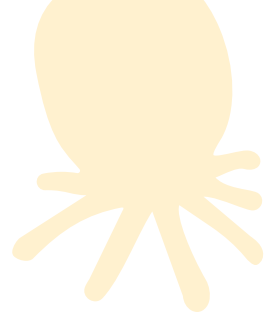
With the first two decades of our voyage in the books, the Urban Coast Institute (UCI) is sailing forward to an exciting new horizon. It's a moment of significant change for the institute, but also of continuity for the core work and programs we've excelled at for 20 years.

There's no more appropriate way to kick this publication off than to acknowledge the person who piloted us this far: our longtime director, Tony MacDonald, who transitioned to a new role as the UCI's senior policy fellow in November. For many readers, the UCI is quite simply synonymous with Tony. He was its first staff member in 2005, a visible presence on and off campus, and the force responsible for raising this small research center into a nationally recognized leader.

This year, Monmouth will commence a national search for Tony's replacement. I have been honored to serve as the UCI's acting director while this process proceeds.

As you browse the pages of this annual report, you'll find there's no shortage of important work underway. As always, it starts with our students. The UCI has helped advance Monmouth University's strategic plan goals of improving student excellence and educational access through means such as our endowed scholarships, paid research assistantships, and Heidi Lynn Sculthorpe Scholars grants.





Grants obtained by the UCI also contributed to Monmouth's first-ever recognition in 2025 as a research college and university (RCU) in the Carnegie Classification of Institutions of Higher Education - a designation achieved by only the top 14 percent of U.S. institutions engaged in research. Our innovative efforts in ocean planning, nature-based means for improving coastal resilience, improving marine ecosystem health, and community science is helping to raise the University's profile while providing formative opportunities for students engaged in these projects.

All of those efforts have prepared us to take on exciting new challenges in 2026. Among them, as a member of the state-assembled Building a Climate Ready NJ team, we will assist overburdened communities with the development of plans to better prepare them for threats from extreme coastal storms. We look forward to helping Monmouth County and local partners in studying ways to improve resilience for communities throughout the Shark River Basin. We are also thrilled to award our first student research positions through the newly established Tony MacDonald Internship and Experiential Education Fellowship Fund.

We hope you enjoy this look back on our 2025 accomplishments and peak ahead at what's to come in 2026. The success of the UCI today and into the future could not be achieved without your support and partnership.

A handwritten signature in blue ink, appearing to read "Tom O. Herrington", located below the main text.

**Tom Herrington**

*Acting Director,*

Monmouth University Urban Coast Institute



# 2025 Heidi Lynn Sculthorpe Scholars Summer Research

The UCI's Heidi Lynn Sculthorpe Scholars Program supports students and faculty of all disciplines in pursuing their passions for marine and coastal issues through experiential research. The program provides grant opportunities for student researchers and faculty mentors to conduct projects of their own design that advance the UCI's mission and Monmouth's Strategic Plan.

Each year, the program supports hands-on, paid research positions that provide real-world experience to students while helping make a positive impact in coastal communities. The UCI provided funding in 2025 for four students and their faculty mentors to conduct summer research projects. The UCI and School of Science also supported one summer project with the aid of a federal grant secured by Rep. **Frank Pallone Jr.**

One UCI Faculty Enrichment Grant was awarded to Associate Professor and UCI Ecopsychologist in Residence Meghan Delaney to advance her research on ecotherapy, which focuses on contact with nature as a method or element of counseling.

## The Anomaly of Coral Reef Conservation

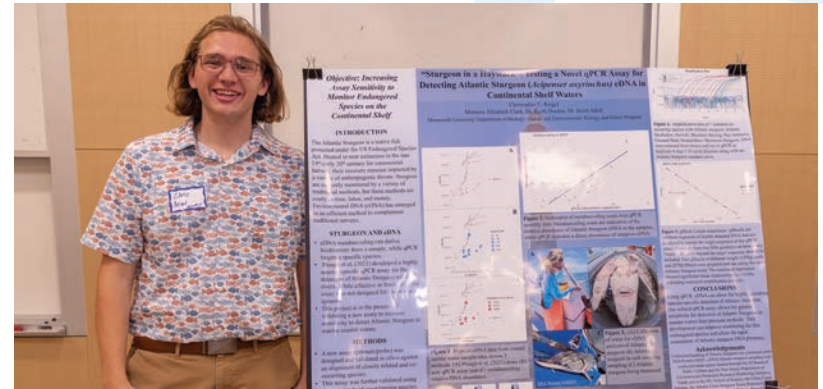
**Student Researcher and Major:** Audrey Copeland, political science

**Faculty Mentor:** Rechnitz Family/UCI Endowed Chair in Marine and Environmental Law and Policy Peter Jacques, Department of Political Science and Sociology

## Beachcomber's Guide to the New Jersey Shore

**Student Researcher and Major:** Diederik Boonman Morales, marine and environmental biology and policy

**Faculty Mentor:** Professor Pedram Daneshgar, Department of Biology/Marine and Environmental Biology and Policy Program



## Development and Testing of a Novel oPCR Assay for Endangered Atlantic Sturgeon Environmental DNA (eDNA) in Continental Shelf Waters

**Student Researcher and Major:** Christopher Reigel, marine and environmental biology and policy\*

**Faculty Mentors:** Endowed Professor of Marine Science Jason Adolf and Environmental DNA/Marine Fisheries Senior Scientist Elizabeth Clark, Department of Biology

*\*Project also supported by School of Science and grant from Rep. Pallone.*



## Catching Up with Heidi Lynn Sculthorpe Scholars Alumni



**Aidan Bodeo-Lomicky '22** recently co-founded Animal Counsel, a nonprofit with a mission of advancing the well-being of wildlife and animals through law and policy work. While at Monmouth, Bodeo-Lomicky received a Heidi Lynn Sculthorpe Scholars Program grant to research threats to the critically endangered North Atlantic right whale, working under the guidance of former Rechnitz Family/UCI Endowed Chair in Marine and Environmental Law and Policy Randall Abate. As an MEBP student at Monmouth, he was awarded the National Oceanic and Atmospheric Administration's prestigious Ernest F. Hollings Undergraduate Scholarship.



He has since earned a J.D. from the University of Colorado Law School, where he served as managing editor of the Colorado Environmental Law Journal and published work on how to better protect the world's rarest and most recently discovered whale species, the Rice's whale. In 2025 he began a clerkship on Colorado's First Judicial District Court, to be followed by clerkships on the Colorado Court of Appeals and the U.S. District Court for the Northern District of California.

**Kathryn Marshall '25** received an honorable mention for outstanding student presentation at the 10th Triennial Workshop on the Ecology, Status, and Conservation of the Diamondback Terrapin, held in September in Cape May. The UCI assisted with her travel to the conference through its Heidi Lynn Sculthorpe Scholars Program.

Marshall, who earned a MEBP degree from Monmouth, is currently pursuing her masters at Florida Atlantic University. A former president of the Love Blue Monmouth, Marshall was awarded UCI grant funding to purchase equipment for the student club's beach cleanups.



### A Study of Invasive Species Persistence in the Presence of Pollution Using Nonautonomous Lotka-Volterra Models

**Student Researcher and Major:** Miriam Abecasis, mathematics and software engineering (double major)

**Faculty Mentor:** Assistant Professor Torrey Gallagher, Department of Mathematics

### Social Impacts of Coastal Disasters in Randolph, N.J., During Hurricane Sandy

**Student Researcher and Major:** Bryana Ruiz, biology

**Faculty Mentor:** Rechnitz Family/UCI Endowed Chair in Marine and Environmental Law and Policy Peter Jacques, Department of Political Science and Sociology

# ★ Meet the UCI's 2025-26 Endowed Scholarship Recipients

Seven outstanding Monmouth University students were awarded endowed scholarships for the 2025-26 school year from the UCI. Three received support for the first time beginning this semester: **Chiara Cocozziello** (Rita Mangan UCI Endowed Scholarship), **Morgan Davis** and **Maggie Raymond** (Ann and Alfred Ferguson '13HN Scholarships).

In addition, the UCI renewed an Urban Coast Institute Endowed Scholarship for **Sage Phelps**, a Rita Mangan UCI Endowed Scholarship for **Rebecca Pimentel**, an Ann and Alfred Ferguson '13HN Scholarship for **Christopher Reigel**, and a MacDonald Family UCI Endowed Scholarship for **Siena Zisa**. All four are marine and environmental biology and policy students.

The UCI established endowed scholarships at Monmouth to support undergraduate students with a demonstrated interest in coastal, marine, and environmental studies. The scholarships are intended to encourage Monmouth students to become active, global citizens while fostering an understanding of the coastal and marine environment and communities, legal studies, public policy, and research methods.



## CHIARA COCOZIELLO

**Class and Major:** Sophomore, marine and environmental biology and policy

**In Her Own Words:** "I believe that the educational track I am on combined with the passion I have for our marine environments will set me up for success in achieving my goals and aspirations to understand and protect the vital ecosystems and wildlife of our world."



## MORGAN DAVIS

**Class and Major:** Junior, marine and environmental biology and policy

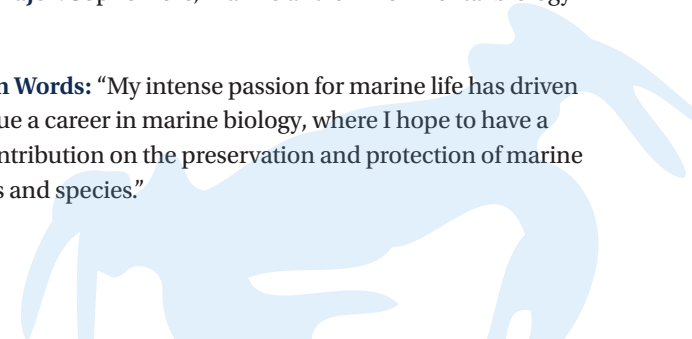
**In Her Own Words:** "Since I was 3 years old, I knew I wanted to work with marine life. It is my passion to work towards ocean conservation and protect aquatic life."



## MAGGIE RAYMOND

**Class and Major:** Sophomore, marine and environmental biology and policy

**In Her Own Words:** "My intense passion for marine life has driven me to pursue a career in marine biology, where I hope to have a positive contribution on the preservation and protection of marine ecosystems and species."



## 2025 Sustainability Ambassadors

The Sustainability Advisory Council (SAC) is an interdisciplinary group made up of faculty, administrators, staff, and students that promotes environmental awareness through education and outreach, along with researching and proposing energy and sustainability policies on campus. The SAC also reviews current practices, policies, and procedures, and recommends actions that will positively impact sustainability at the University.

The UCI supported positions for three Sustainability Ambassadors to advance the goals of the SAC in 2025: (from l-r) accounting student **Olivia Denney**, psychology student **Kaelin Edge**, and marine and environmental biology and policy student **Hilani Wahl**.



# ★ Living Laboratories: Protecting Coasts with Oyster Reef and Green Infrastructure Projects

The UCI and its partners made strides in advancing nature-based coastal resilience through innovative oyster reef and living shoreline projects last year as part of the UCI's Coastal Community Resilience Initiative, led by Acting Director Tom Herrington. Building on years of restoration science, the UCI's work is helping coastal ecosystems and communities adapt to erosion, severe storm impacts, and biodiversity loss.



Central to the UCI's efforts is the long-term oyster reef installation at **Naval Weapons Station Earle**, located on the Raritan Bay in Middletown. In December, the UCI was awarded a \$991,655 grant from the New Jersey Department of Environmental Protection (NJDEP) to expand this project by adding roughly 600 additional oyster castles—stackable, cement-like structures seeded with oyster larvae—to the reef site. This funding will also support upgrades to the UCI's aquaculture facility and monitoring equipment.



The reef is designed to bolster shoreline resilience by dissipating wave energy, promoting sediment accumulation, and creating habitat. Staff and student researchers will track species richness and abundance using environmental DNA (eDNA) sampling, fish trap deployments, and observations of the oyster castles.

## Cliffwood Beach and Sylvan Lake Restoration

The UCI's collaborative efforts were further strengthened in September, when the U.S. Navy extended its partnership with the institute through 2029 under the Department of Defense's Readiness and Environmental

Protection Integration (REPI) program. Of \$4.2 million awarded to the UCI, approximately \$3 million will be allocated to rebuild dunes, restore maritime forest features, and install oyster castles at Cliffwood Beach in Aberdeen Township. The grant will support continued reef work at Earle, marsh enhancements in Ware Creek on the premises to improve stormwater flow and support native vegetation. The grant will also support design work for a shoreline restoration project at Sylvan Lake in Bradley Beach and Avon-by-the-Sea.

### Long Beach Township Living Shoreline

Through a donation from New Jersey Resources, the UCI and Long Beach Township made significant progress on a Clam Cove Living Shoreline Pilot Project designed to stabilize and restore coastal wetlands in the Barnegat Bay. As part of the experimental project, an oyster castle perimeter was installed adjacent to Clam Cove island to protect the shoreline from increasing erosion. The center of the perimeter is filled with loose shell and bagged loose shell recycled from local restaurants.

## Sculptures of Natural Reef Shapes Studied for Oyster Recruitment



**When art imitates life, will it breed more life? An experimental collaboration between the UCI and Department of Art and Design aims to find out.**

Associate Professor of Art Kimberly Callas and students created 3D-printed sculptures that mimic the shapes of reefs that are commonly found in Mid-Atlantic waters. The sculptures are being studied in the UCI's aquaculture tanks at Naval Weapons Station Earle to learn whether oyster larvae are any more likely to colonize them than other materials that have been used to build a reef off the facility's shores.

Callas and the students consulted UCI Coastal Resilience and Restoration Practitioner Meredith Comi and Marine Biology Technician Amanda Boddy for insights on how to make

them lifelike. The shapes and textures that are most successful will be reproduced as larger marine concrete versions that can withstand the pounding of the waves and currents and deposited in the reef installation.



# ★ Community Science in Action: eDNA Sampling and CLONet

Community science programs empower local volunteers to protect the natural places they love by teaming them up with Monmouth scientists and students on data collection efforts. Two standout initiatives in 2025 — environmental DNA (eDNA) sampling at Monmouth County beaches and the ongoing Coastal Lakes Observing Network (CLONet) — demonstrated the capability of community-engaged science to generate meaningful insights and build lasting stewardship.

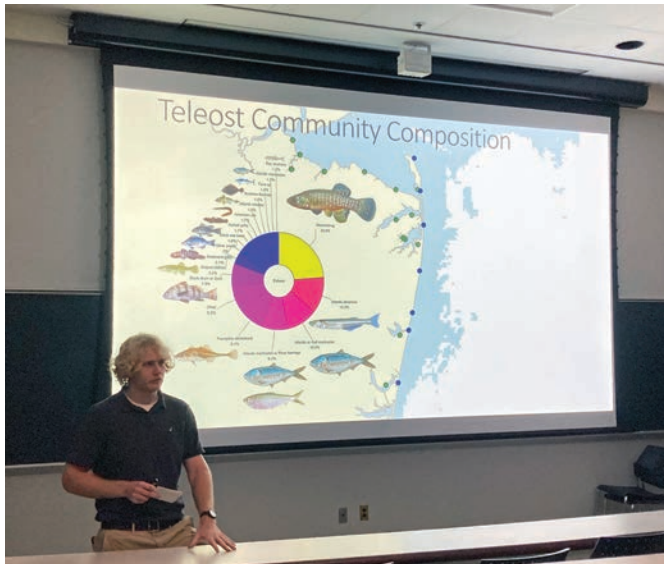
## What Species Live in Monmouth Waters?

Beginning in September, UCI researchers equipped and trained community scientists to collect water samples at 22 shoreline stations from Manasquan Inlet to Raritan Bay. These samples were lab-analyzed for eDNA — tiny fragments of genetic material shed by organisms into the water.

The analysis revealed at least 68 species of fish residing in local coastal waters during fall 2025. Among the most prevalent in estuarine waters were species like mummichog, Atlantic silverside, and menhaden, while ocean sites showed species such as tautog and clearnose skate. The highest species richness was recorded at Asbury Park and Belmar beaches, underscoring the biodiversity along the county's coast. Collected data will establish a baseline for future biodiversity monitoring and help track changes over time.

## Monitoring Coastal Lake Health

The CLONet partnership, led by Endowed Professor Marine Science Jason Adolf and Community Science Coordinator Erin Conlon, continued to expand its scientific reach across the county's seaside



Resilience and Outreach Project Lead Richard Kane presents the findings of eDNA sampling at local beaches to community volunteers.

lakes. Since CLONet’s launch in 2019, volunteers have collected over 2,300 water quality samples from a dozen coastal lakes, measuring temperature, dissolved oxygen, salinity, clarity, and algal indicators.

At the 2025 Coastal Lakes Summit, students presented findings integrating CLONet data with eDNA analyses from Sunset and Deal lakes, uncovering distinct fish communities and identifying patterns in lake health. For example, research showed that white perch eDNA levels correlate with indicators of harmful algal blooms, offering a potential biological early warning system. Additionally, analysis revealed that green infrastructure efforts, such as the floating wetland islands in Wesley Lake, are associated with improved dissolved oxygen levels, a key measure of water quality.

**If you’re interested in participating in or learning more about the UCI’s community science initiatives, contact Conlon at [econlon@monmouth.edu](mailto:econlon@monmouth.edu).**

A photograph of a surfer in a black wetsuit riding a wave. The scene is captured at sunset, with the sky and water reflecting the golden light. The surfer is in a dynamic pose, leaning back as they ride the wave. The background shows a city skyline with buildings silhouetted against the bright sky.

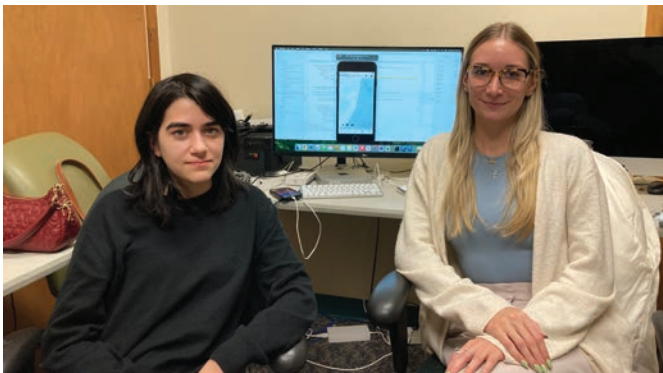
## Monmouth a Top Surf College

**M**onmouth checked into **Surfer Magazine’s** “Top 10 Surf Colleges in America” list in 2025. In addition to covering the local breaks and lifestyle, the magazine noted Monmouth was “widely considered one of the top private schools in the region” and offered “a bounty of learning opportunities for ocean-inclined students through the school’s Urban Coast Institute and internships with the New Jersey Division of Fish and Wildlife.”

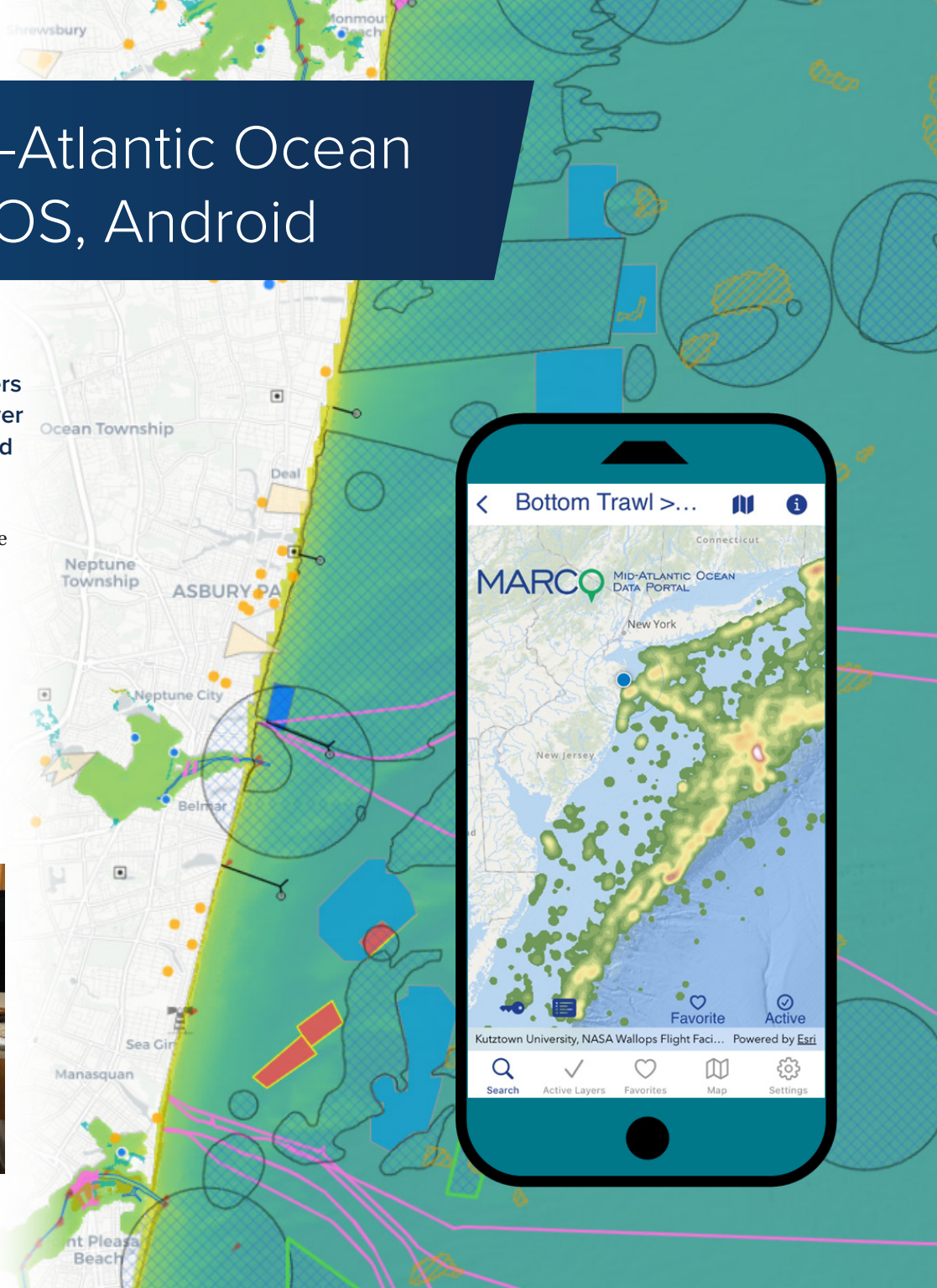
# ★ Students Create Mid-Atlantic Ocean Data Portal App for iOS, Android

A team of Monmouth University computer science students published a mobile app version of the Mid-Atlantic Ocean Data Portal in 2025, giving users access to a sea of coastal and ocean maps wherever they may be. The app is available for free download on Google Play and the Apple App Store.

The Portal ([portal.midatlanticocean.org](http://portal.midatlanticocean.org)) is a publicly accessible GIS site containing over 6,000 interactive maps showing vessel traffic patterns, marine life, commercial fishing, recreation hot spots, offshore infrastructure, and much more. Maintained by the Mid-Atlantic Regional Council on the Ocean (MARCO), the site has become an influential tool for informing ocean management decisions and a valuable educational resource. UCI Communications Director and Ocean Data Manager Karl Vilacoba manages the Portal's technical team, which also includes Fisheries and Ocean Conservation Fellow Jay Odell and Senior Ocean Policy Fellow Tony MacDonald.



Anjali Narang (l) and Ava Taylor



Due to the complexity of the Portal's GIS web app, the site has limited compatibility with smaller handheld devices. Monmouth graduates Nolan Beagell, Chelsea Spencer, and Ava Taylor set out to build a solution during a senior project course taught by Specialist Professor Raman Lakshmanan. The group unveiled a beta version of the app for users to test and share their feedback at MARCO's 2024 Mid-Atlantic Ocean Forum in New York City. MARCO was impressed by what it saw, and the organization provided grant funding to the UCI to finish the job.

Taylor was contracted after graduation last year to continue her work along with Monmouth computer science senior Anjali Narang. The duo refined the technology out of the Department of Computer Science and Software Engineering's Mobile Apps and AR/VR Lab in Howard and Edison Halls, with Taylor leading the iOS version's development and Narang the Android product. Lakshmanan said the project was the most rewarding his students have ever worked on in terms of delivering the full experience of creating a product for a client and advancing it to the market.

With additional MARCO support in 2026, the team will release a second version of the app with new tools and capabilities.



## Class Assignment Leads to Student's Discovery of Invasive Anemone Species

Student and faculty researchers at Monmouth recorded the first confirmation of the anemone species *Actinia equina*, also known as the beadlet anemone, on North American shores. A common inhabitant of the rocky coastlines of the British Isles and Northern Europe, the anemone has found a new home which bears some similarities – the jetties that protrude into the waters of the Jersey Shore

Diederik Boonman, a marine and environmental biology and policy student, first encountered the anemones while cataloging marine life in the intertidal zone at a beach near campus as part of a homework assignment. Neither he nor Endowed Professor of Marine Science Jason Adolf recognized what they were seeing, and a review of existing literature and databases did not turn up any likely matches known to live in the region.

They continued the search and consulted with anemone experts from around the globe. After zeroing in on the *Actinia equina*, they compared DNA samples from one of the New Jersey anemones with a specimen in England and turned up a match. The researchers believe the anemones most likely arrived as hitchhikers aboard an international ship traveling to the Port of New York/New Jersey. A study by the group was published in the Journal of the Marine Biological Association of the United Kingdom.

# ★ Celebrating Champions of the Ocean and a UCI Milestone



The UCI welcomed the public to campus for its **2025 Future of the Ocean Symposium and Champion of the Ocean Awards**, which had a theme of “Exploring the Wine-Dark Sea – U.S. Ocean Science and Technology: Keys to Prosperity and Security.” The event also commemorated the 20th anniversary of UCI, which was established in 2005.

A new wave of marine technologies such as artificial intelligence, autonomous underwater gliders, environmental DNA, and acoustic telemetry is rapidly changing how we study and what we know about our oceans. The symposium assembled a panel of leading voices in ocean science and exploration for a conversation on actions the U.S. must take to harness these innovations to ensure its economic prosperity and national security.



Panelists included: Caladan Oceanic CEO **Victor Vescovo**, an entrepreneur and extreme ocean explorer who was the first person to visit the deepest point in all five of the world’s oceans; ocean mapping pioneer **Larry Mayer**, chair of the U.S. Arctic Research Commission and director of the University of New Hampshire Center for Coastal and Ocean Mapping; VADM (Ret.) **Paul Gaffney**, Monmouth University president emeritus and former chief of naval research; **Deerin Babb-Brott**, former White House Office of Science and Technology Policy principal assistant director for oceans and the environment; **Paula Bontempi**, University of Rhode Island Graduate School of Oceanography professor and president of the Oceanography Society; and **Philipp Stratmann**, Ocean Power Technologies president and CEO.

Top: UCI Sr. Ocean Policy Fellow Tony MacDonald (l) and Monmouth University President Patrick Leahy (r) present the Champion of the Ocean Award to Rep. Frank Pallone. Bottom: Caladan Oceanic CEO Victor Vescovo speaks at the symposium.

The UCI subsequently honored Vescovo, Mayer, and **Rep. Frank Pallone** with its National Champion of the Ocean Award. The award was established in 2005 to honor individuals who have undertaken actions and demonstrated sustained leadership that ensures coasts and oceans are clean, safe, sustainably managed, and preserved for the benefit and enjoyment of future generations.

At the conclusion of the luncheon, UCI Senior Ocean Policy Fellow Tony MacDonald shared some final thoughts on how far the UCI had come over the past 20 years and expressed his gratitude to the attendees and honorees, quoting a passage from Longfellow's "The Seaside and the Fireside":

*Thanks for the sympathies that ye have shown!*

*Thanks for each kindly word, each silent token,*

*That teaches me, when seeming most alone,*

*Friends are around me, though no words are spoken.*

*Therefore I hope to join your seaside walk,*

*Saddened, and mostly silent, with emotion:*

*Not interrupting with intrusive talk*

*The grand majestic symphonies of the ocean.*

This event was made possible thanks to the generosity of the Leslie Hitchner Family and the following sponsors: New Jersey Natural Gas, the Port Authority of NY/NJ, PSEG, Chiles Consulting, Najarian Associates, National Oceanographic Partnership Program, Surfrider Foundation Jersey Shore Chapter, The Nature Conservancy, Trudy and Charlie Parton, Pringle Quinn Anzano PC, AKRE, the Jersey Shore Partnership, Rita Mangan, and the Montecalvo & Bayshore Family of Companies.

### For More Information

Scan this QR code to view an all-time list of Champion of the Ocean honorees, as well as videos and other multimedia from this and other past events.



20<sup>th</sup>  
**ANNIVERSARY**  
2005-2025

## Thanks for Celebrating the UCI

The UCI offers its gratitude to all who celebrated our 20th anniversary with us in 2025, placing the institute in outstanding position to set sail for its third decade of service. It was an extraordinary year of fundraising, thanks to the generosity of a record number of donations, both large and small.

Among the legions of supporters who have helped the UCI soar over the past 20 years, we are especially grateful to those whose generosity amplified this milestone year. Members of our community lifted-up our endowment with six- and seven-figure gifts, bolstered annual support during our Giving Days challenge, and energized our mission during a historic Champion of the Ocean Awards luncheon.

Your generosity will strengthen the UCI and greatly enhance opportunities for student collaboration for years to come.



It's not too late to join the sea of donors who supported us during this past year. Scan this QR code or visit [monmouth.edu/give](https://monmouth.edu/give) to make a gift today.

# ★ From Classrooms to COP30: The UCI's Climate Work in 2025



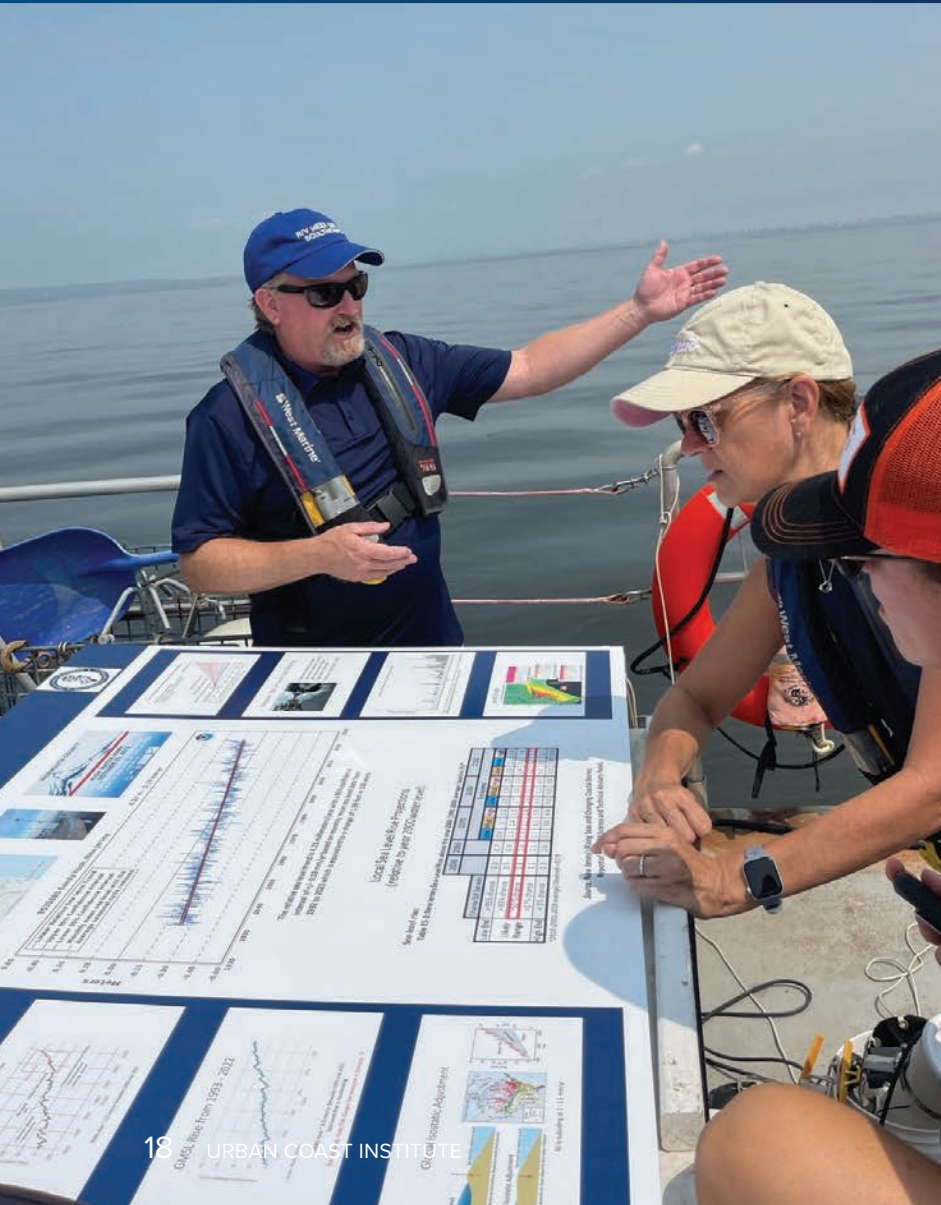
The UCI amplified its role as a leader in climate research and education last year, addressing the issue from the most local to global perspectives.

The UCI expanded its international climate engagement through partnerships with the Global Ocean Forum (GOF), co-hosting a three-part **Ocean and Climate Action Webinar Series** that connected worldwide experts with audiences on pressing ocean-climate intersections. The UCI and GOF also organized a **COP30 Virtual Ocean Pavilion** during the United Nations (U.N.) Climate Conference held in Brazil. The free online platform amplified ocean voices in climate negotiations and brought youth perspectives into global discourse.

As part of the Pavilion's youth-led interview series, Monmouth senior Siena Zisa, a joint research assistant for the UCI and GOF, spoke with Chilean marine scientist Carlos Gaymer about key scientific themes being debated at the conference and making complex ocean-climate issues accessible to broader audiences.

UCI Senior Ocean Policy Fellow Tony MacDonald attended and participated in a panel at the 2025 U.N. Ocean Conference in Nice, France. MacDonald continues to serve as chair of the National Academies of Science, Engineering and Medicine's National Committee for the Decade of Ocean Science for Sustainable Development.

**Left:** UCI Acting Director Tom Herrington delivers a lesson to teachers as part of the Monmouth University Climate Change Learning Collaborative. **Top right:** Professor Peter Jacques delivers a lecture at Monmouth's 2025 Global Understanding Convention.



## Studying Roots of Climate Science Denial



A major academic contribution came from Rechnitz Family/UCI Endowed Chair in Marine and Environmental Law and Policy Peter Jacques, who published a study on the nature of climate science denial. For over a decade, Jacques and his research team, which included students and co-author Riley Dunlap of Oklahoma State University, analyzed more than 100 books rejecting climate science to understand how denial arguments are structured.

They identified four dominant themes in denial literature: trend denial (rejecting that warming is happening), attribution denial (rejecting human causes), impact denial (downplaying harms), and policy denial (casting mitigation efforts as unnecessary or harmful). The study highlighted how many of these arguments obscure broader motives and manufacture doubt about settled science, underscoring how the public can be misled into perceiving a false scientific divide. This research, published in PLOS One, offers insight into the rhetoric and psychology behind climate skepticism and provides a foundation for better public education and communication strategies.

## Teaching Climate in the Classroom

On the educational front, the **Monmouth University Climate Change Learning Collaborative (MU CCLC)** was developed by Assistant Professor Michelle Schpakow of the Department of Curriculum and Instruction, School of Science Associate Dean Catherine Duckett, and Jacques in collaboration with the UCI, New Jersey Sea Grant Consortium, and Monmouth Conservation Foundation.

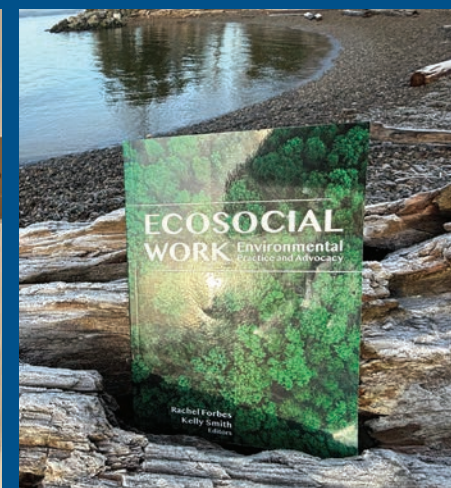
Funded through the New Jersey Department of Education, the MU CCLC prepared state K-12 educators to integrate climate change into curricula in developmentally appropriate ways across subjects and grade levels. The initiative offered professional development workshops, interdisciplinary instruction sessions, and a culminating showcase event where teachers and students shared climate education projects.

## Forbes Receives Book Award for ‘Ecosocial Work’

UCI Community Engagement and Outreach Specialist Rachel Forbes was recognized with the 2025 Society for Social Work and Research (SSWR) Book Award Honorable Mention for her work on “Ecosocial Work: Environmental Practice and Advocacy.”

Edited by Forbes and Institute for Social Work and Ecological Justice Director Kelly Smith, the book examines the need for social workers to proactively engage with clients and communities and respond to the growing impacts of environmental injustices in the face of the accelerating climate crisis. The book encourages readers to consider how simultaneously protecting the planet while meeting the historical aims of the profession advances the values and ethical mandates social workers abide by. Designed to foster critical thinking, the book offers hope and possibility for a just environmental future.

Forbes (pictured below) was honored during a ceremony at the 2025 SSWR Conference in Seattle. The SSWR lauded Forbes and Smith for “outstanding scholarly contributions that advance social work knowledge.”



# ★ ‘Ocean Bodies,’ A Solo Exhibition by Kimberly Callas

Associate Professor of Art Kimberly Callas held a solo exhibit titled “Ocean Bodies” at the University’s Ice House Gallery in the spring that featured several works she created during a two-year faculty fellowship at the UCI. The exhibition offered an immersive exploration of humanity’s interconnectedness with the ocean, drawing on symbols, archetypes, and ecological narratives to invite contemplation and action.

Through sculptures, large-scale drawings, and mixed-media works, Callas examined the “crisis of meaning” at the heart of the climate crisis and advocated for a shift in consciousness toward an “ecological self.” This concept, central to her work,

reflects humanity’s integral role within nature rather than apart from it. In “Ocean Bodies,” she used water-based materials, such as dyed fabrics, India ink, and water-soluble graphite, to invoke the sea’s physical presence while exploring the symbolic depth of whales, the horizon, and the ocean itself as metaphors for the psyche and cosmos.

Among the featured works were a series of 10-foot mixed-media drawings inspired by historical nautical charts, which pair psychological journeys with the migration of critically endangered North Atlantic right whales. Complementing these works were colorful life-size figurative sculptures and reliefs, 3D-printed using bio-filament, that further explore themes of renewal and interconnection.





## Ecopsychologist in Residence Helping Students ‘Restore at the Shore’

**A**ssociate Professor Megan Delaney joined the UCI in 2025 as its ecopsychologist in residence. In this first-of-its-kind role, Delaney will deliver “Restore at the Shore” programming designed to help students reduce stress and revive their attention and energy for classwork through direct engagement with nature, including ocean and coastal environments.

Delaney, of the Department of Psychology, has created courses at Monmouth and conducted research with UCI grant support on ecotherapy, which focuses on contact with the natural world as a method or element of counseling. Monmouth is one of the few universities in the U.S. to offer an ecotherapy specialization, which Delaney designed and oversees.

The residency seeks to present students with practical tools for stress relief, concentration restoration, and mental renewal through encounters with water and green spaces. Delaney met in the fall with student clubs that have science and nature focuses to offer lessons on ways students can utilize the campus and natural spaces at the shore to reinvigorate themselves when they are feeling stressed.

This year she hopes to organize activities such as nature study breaks, goat yoga, paddleboarding trips, campfires, beach meditation, and guided shoreline walks. Delaney will be assisted in organizing the programming by Ian Bley, Sean McCann, and Haley Roberts, all graduate students in the Professional Mental Health Counseling program.



# ★ Transition at the UCI

After two decades as the UCI's director, Tony MacDonald stepped down in November to transition to a new role as a senior ocean policy fellow. UCI Associate Director Tom Herrington was named acting director as the University commences a national search for MacDonald's replacement.

When the UCI was launched in 2005, MacDonald was hired as its inaugural director. At the time, the University sought to take advantage of the opportunity presented by its location just a mile from the ocean, establishing a degree in marine and environmental biology and policy and recognizing the potential for a new policy research center focused on interactions between humans and the coastal and ocean environment. The UCI has since grown into a national leader in areas including marine science and policy, ocean planning, and coastal resilience, and is well positioned to continue that work.



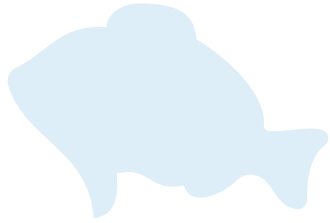
## Support MacDonald Fellowships

In recognition of his legacy, the UCI Advisory Committee has established a **Tony MacDonald Internship and Experiential Education Fellowship Fund** to support research and educational opportunities for Monmouth students that advance the UCI's mission. Recipients will receive paid fellowships to engage

in internship projects, research, policy analysis, or applied projects related to coastal, marine and environmental science, law or policy.

To make a gift to the fellowship fund, use the QR code or visit [monmouth.edu/give](https://monmouth.edu/give).





A New Jersey native who spent summers in Avon-by-the-Sea, MacDonald returned to the Jersey Shore to launch the UCI after over three decades as a marine and environmental policy attorney in Washington, D.C., and New York City. In his new role, MacDonald will continue his ocean policy work while providing advice and support to UCI and the University.

MacDonald expanded what started as an organization with two employees has become a team of a dozen dedicated professionals with expertise in marine science and policy areas, while expanding external collaboration and partnerships. The UCI has attracted extensive donor support and research funding for projects like the ones covered in this report, which have made important impacts on coastal communities and provided real-world field experience for students.

## Meet Our Newest Team Members

### **Richard Kane, Resilience and Outreach Project Lead**



Richard Kane joined the UCI as its resilience and outreach project lead. In this role, he is working with Endowed Professor of Marine Science Jason Adolf to conduct federally funded research on the use of environmental DNA for determining marine life composition in the Lower Hudson Raritan Estuary (LHRE).

Kane has led several research projects in the LHRE, including a spatial analysis of water quality parameters, and a historical review of marine life from prehistory to modern day. He has also worked with Rutgers University Haskin Shellfish Research Lab, conducting spatial analysis at large and small scales, as well as analyzing innovative aquaculture configurations for Atlantic surfclam.

Kane graduated Monmouth University with a B.S. in marine

and environmental biology and policy and a minor in geographic information systems (GIS) in May 2023. In 2024 he earned a graduate certificate in GIS from Monmouth.

### **Heather Korzun, Community Engagement Fellow**



Heather Korzun joined the UCI as a community engagement fellow supported through the National Oceanic and Atmospheric Administration's (NOAA) Coastal Resilience Fellowship Program. In this role, Korzun is supporting UCI Acting Director Tom Herrington in coordinating project pipeline work for the Building a Climate Ready NJ initiative, which is funded by NOAA and led by the New Jersey Department of Environmental Protection. In 2024, the UCI was named a partner in the initiative, which aims to harness statewide expertise to advance

resilience planning, project design, construction, and education across New Jersey's 16 coastal counties.

Korzun is working to ensure that multiple education, engagement, and training activities are planned and implemented in conjunction with Building a Climate Ready NJ core activities. She is working closely with Herrington and UCI Community Engagement Specialist Rachel Forbes to gather knowledge from residents, community leaders, and other stakeholders that will help identify resilience projects that are most needed and would be the most impactful. The recommendations will then be entered into the project pipeline for further study and eventual implementation.

Korzun most recently served as a planning fellow at the Land Conservancy of New Jersey, assisting municipalities across the state with developing open space and recreation plans and helping target lands that would be valuable for conservation. She graduated from Mary Baldwin University with a bachelor's degree in sustainable business before completing her master of public administration at the University of Pennsylvania.

# ★ 2025 in Pictures





5



6



7

1. Marine and environmental biology and policy (MEBP) senior Siena Zisa delivers the closing call to action at the 2025 Future of the Ocean Symposium.

2. MEBP senior Grace Schleiden gathers a water sample in the Raritan Bay with UCI staff aboard the R/V Little Hawk.

3. Fisheries and Ocean Conservation Fellow Jay Odell moderates a panel at the 2025 Mid-Atlantic Ocean Forum.

4. Panelists watch on as University of Rhode Island Professor Paula Bontempi speaks at the symposium.

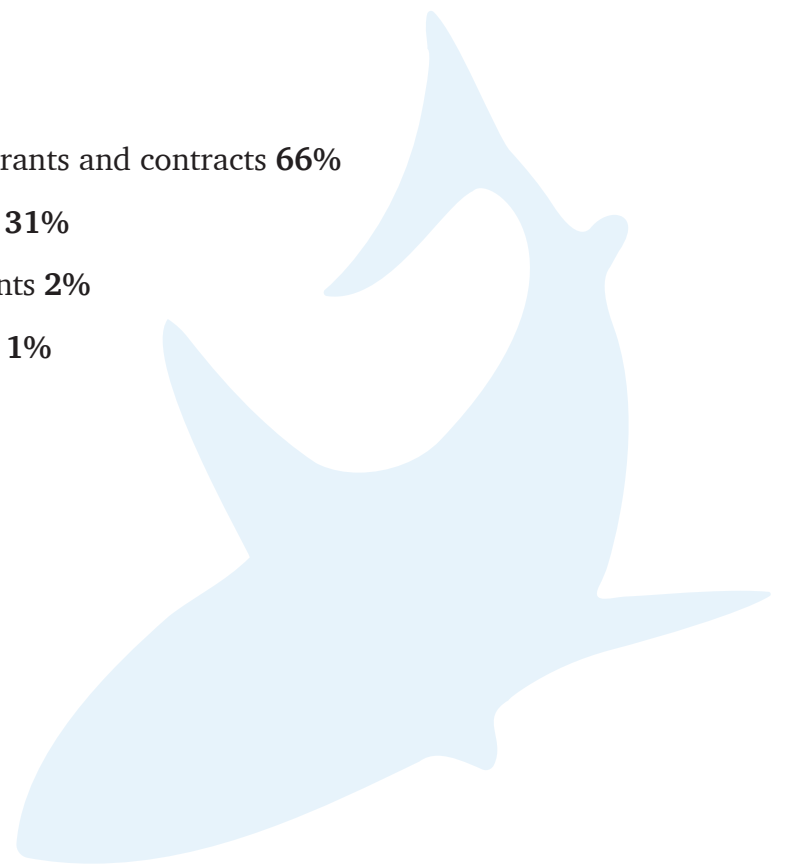
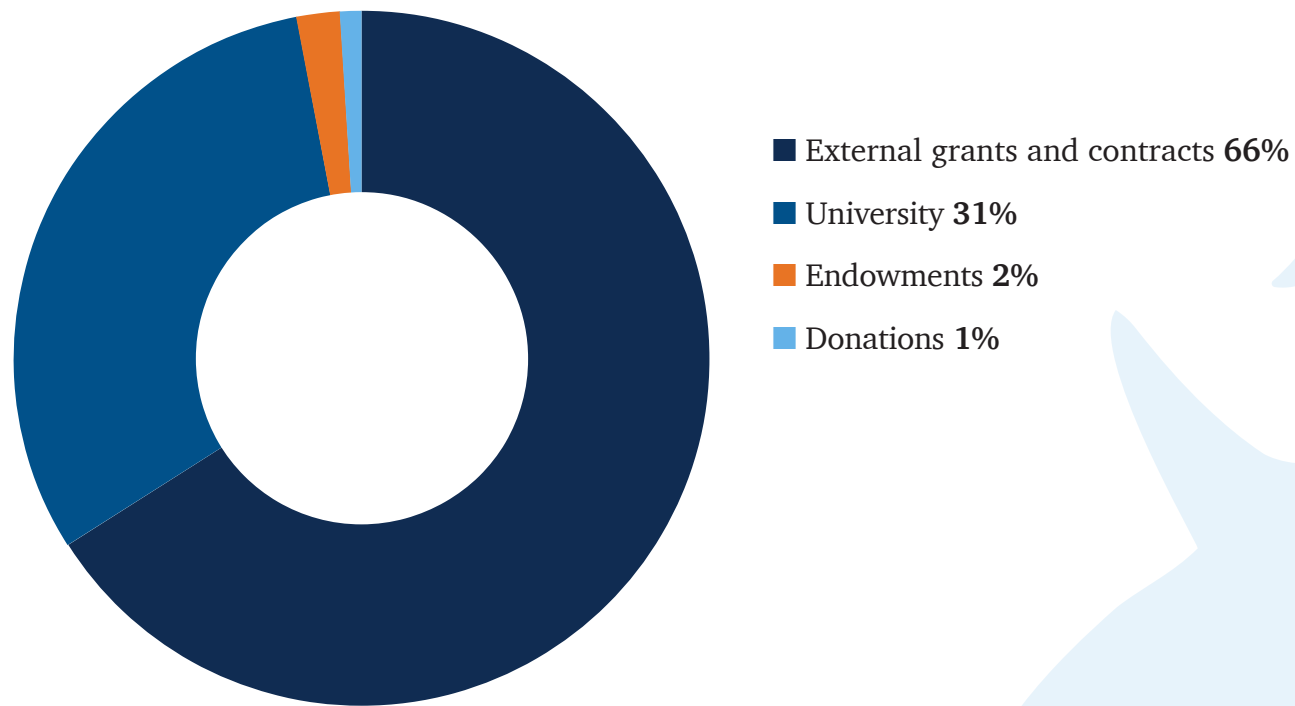
5. UCI Senior Ocean Policy Fellow Tony MacDonald and fellow speakers at the U.N. Ocean Conference in Nice, France.

6. UCI Acting Director Tom Herrington (l) and Monmouth Beach Mayor Tim Somers on a panel about climate resilience.

7. The University hosted Monmouth County GIS Day with a panel that included (l-r) County GIS Manager Michael Hanlon, University Cartographer Dane Ward, County GIS Specialist and 2019 MEBP graduate Sydney Lucas, UCI/NOAA Community Engagement Fellow Heather Korzun, and UCI Resilience and Outreach Project Lead Richard Kane.

# ★ 2025 Expenditures by Source

The UCI operates on a budget-neutral basis to the University. Indirect costs charged to external funders as part of grant and contract work offset funds contributed to the UCI by Monmouth.



## Give a Gift Now

Your gift to Monmouth University has a direct impact on the academic experience and post-graduate success of Monmouth University students. To make a tax-deductible gift to the Urban Coast Institute, please use the contribution form at the link listed below or the QR code. Monetary gifts to the UCI support student-faculty research projects and UCI operations.

[monmouth.edu/give](https://monmouth.edu/give)



## Public Engagement and Service

### **THOMAS HERRINGTON, PH.D.**

American Shore and Beach Preservation Association, Board Member, 100th Anniversary National Coastal Conference Co-chair

Jersey Shore Partnership Board of Directors

Journal of Marine Environmental Engineering, Editorial Board

New Jersey Bay Islands Initiative Working Group

New Jersey Coastal Resilience Collaborative, Board of Directors

Northeast Shore & Beach Preservation Association, Vice President

Rutgers University CoPe MACH Hub Community Stakeholder Advisory Panel  
Shore & Beach, Editorial Board

### **JASON ADOLF, PH.D.**

New Jersey Harmful Algal Bloom and Lake Management Expert Team

New Jersey Water Monitoring Council (Monmouth University alternate)

### **MEREDITH COMI**

Barnegat Bay Partnership Advisory Committee and Science and Technical Advisory Committee

Kean University Development of an Environmental Management M.S. Advisory Board

New Jersey Aquaculture Development Plan Update Committee

New Jersey Bay Islands Initiative Working Group

NY-NJ Harbor and Estuary Program Restoration Work Group and Oyster Sub Group

New Jersey Coastal Resilience Collaborative Coastal Ecological Restoration Steering Committee

### **RACHEL FORBES, PH.D., MSW**

Council for Social Work Education Commission on Educational Policy, Elected Commissioner

### **CHRISTOPHER HAAK, PH.D.**

Fisheries Conservation Foundation Advisory Council

### **PETER JACQUES, PH.D.**

Earth Systems Governance, Senior Fellow

Global Environmental Politics, Editorial Board

The Trumpeter, Editorial Board

### **TONY MACDONALD, ESQ.**

Coastal States Stewardship Foundation, Board Member

Monmouth County Conservation Foundation, Trustee

National Academies of Science, Engineering and Medicine National Committee for the Decade of Ocean Science for Sustainable Development, Chair

New Jersey Climate Change Alliance, Steering Committee

Woods Hole Oceanographic Institution Marine Policy Center Advisory Committee

### **JAY ODELL**

Mid-Atlantic Fishery Management Council Ecosystem and Ocean Planning Advisory Panel

### **KARL VILACOPA**

New Jersey Coastal Resilience Collaborative, Communications Workgroup Lead

New York Urban Assembly Harbor School Professional Advisory Committee

## UCI Advisory Committee

Kenneth Pringle, Chair

Chris Benosky

Laura Brinkerhoff

Bradley Campbell

Benson Chiles

David Ennis '74

Katie Feery

Alfred L. Ferguson '13HN

Janice Fuller

Russell Furnari

Nickitas Georgas

William Hanson

Lyndie Hice-Dunton

David Hinchey, Jr.

Leslie Hitchner

Kanesha Jones '03

Frederick Kaeli '61

Josh Kohut

Susan Kyrillos

Rick Larrabee

Marion McClary

Zach McCue

Tavit Najarian

Kris Ohleth

Caleb Stratton

Amy Tuininga

James Vasslides



---

## Stay Informed

Join the UCI mail list to receive our e-newsletter and other important announcements.

Sign up online at [monmouth.edu/uci](http://monmouth.edu/uci) or [uci@monmouth.edu](mailto:uci@monmouth.edu).

400 Cedar Avenue

W. Long Branch, NJ 07764

[www.monmouth.edu/uci](http://www.monmouth.edu/uci)

