Ramapo College Students Launch a Climate Change Project at Meadowlands Environment Center

MAHWAH, N.J. – Ramapo College students and dozens of middle-schoolers from Ridgefield Park, N.J., got hands-on experience in researching climate change this summer. The project, which saw the launch of “artificial floating islands” in the waters at the Meadowlands at the NJ Sports and Exposition Authority (NJSEA) in DeKorte Park, was conducted in partnership with the Ridgefield Park Board of Education summer youth program which included students grades 6-8.

The grant for Teaching, Research & Action to Combat Climate Change project, funded by a private grantor, provided the means for Ramapo students to work and study at the Meadowlands Environment Center (MEC) and the NJSEA Parks Department, both in Lyndhurst, N.J.

The manager of the grant, Dr. Angela Cristini Professor of Biology at Ramapo College, said this project is a great opportunity for all involved. “The next generation of environmental scientists and educators had hands-on, real world learning experiences that will make a difference. I am hopeful that we will be able to extend and grow these programs in the future.”

The Ramapo student interns worked with World Sustainability instructor Karin La Greca to create the learning objectives for the module, and to update the curriculum. They worked with MEC Director of Disability Education Michele Daly to learn about prior experience teaching this module, and to modify the activities to fit into four 52-minute sessions to be offered at the MEC. The interns created a prototype, tested it, and made modifications in advance of the first session with
the middle school students in early July. They then worked with the middle schoolers to create their own floating islands.

*Artificial Floating Islands* (AFIs) are human-made floating structures and are recognized as a successful tool for habitat restoration. AFIs serve various functions, such as water purification through absorption; habitat for fishes, birds, and other organisms; breaking waves; and landscape improvement. AFIs create mini ecosystems on the water they are floating wetlands. Two of the biggest benefits are improved water quality and diverse habitat.

Climate change has affected harmful algal blooms—the overgrowth of algae in water. Blooms occur when excess nutrients (nitrogen and phosphorus), combine with sunlight, and warm temperatures. They can cause severe, negative impacts on aquatic ecosystems, the economy, and human health. These floating wetlands can help reduce algae by cycling phosphorus and nitrogen. They can reduce total suspended solids which cause cloudy water.

“Meadowlands Environment Center school enrichment programs provide highly valuable, up-close learning experiences that inspire students to take an interest in environmental protection and preservation at a critical, early age,” said Vincent Prieto, President and CEO of the NJSEA. “The Artificial Floating Islands project is an excellent example of how the MEC engages students in subjects that align with significant current events such as climate change and sea level rise. Environment Center educators are to be commended for their outstanding work and dedication to their students.”

As the educational component of the NJSEA, the MEC teaches students in Grades K-12 a variety of subjects including ecology, sustainability, chemistry, biology, physics, natural history, astronomy, and healthy eating and nutrition. Classes are taught by Ramapo College educators through a partnership with the NJSEA.

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Ramapo College of New Jersey is the state’s premier public liberal arts college and is committed to academic excellence through interdisciplinary and experiential learning, and international and intercultural understanding. The College is ranked #1 among New Jersey public institutions by College Choice; is recognized as the state’s top college on the list of Best Disability Schools by *Great Value Colleges*; was named one of the 50 Most Beautiful College Campuses in America by *CondeNast Traveler*; and is recognized as a top college by *U.S. News & World Report, Kiplinger’s, Princeton Review* and *Money* magazine, among others. Ramapo College is also distinguished as a Career Development College of Distinction by CollegesofDistinction.com, boasts the best campus housing in New
Jersey on Niche.com, and is designated a “Military Friendly College” in Victoria Media’s *Guide to Military Friendly Schools*.

Established in 1969, Ramapo College offers bachelor’s degrees in the arts, business, data science, humanities, social sciences and the sciences, as well as in professional studies, which include business, education, nursing and social work. In addition, the College offers courses leading to teacher certification at the elementary and secondary levels, and offers graduate programs leading to master’s degrees in Accounting, Applied Mathematics, Business Administration, Contemporary Instructional Design, Computer Science, Creative Music Technology, Data Science, Educational Leadership, Nursing, Social Work and Special Education, as well as a Doctor of Nursing Practice.