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UVI Awarded \$20 Million National Science Foundation Grant for VI-EPSCoR's 'Ridge to Reef' Project

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Volunteers at the St. Thomas Great Mangrove Clean-up in 2018. Photo by M Grimes By. UVI

The Virgin Islands Established Program to Stimulate Competitive Research (VI-EPSCoR) has been awarded funding for its fourth National Science Foundation (NSF) EPSCoR grant titled “Ridge to Reef”, the University of the Virgin Islands has announced.

The Ridge to Reef (R2F) project is a five-year, \$20 million grant dedicated to addressing the impacts of changing environmental conditions on small island social-ecological systems such as those in the U.S. Virgin Islands. Hosted by the University of the Virgin Islands (UVI), VI-EPSCoR is a territorial program of the National Science Foundation. Its focus is on developing

both infrastructure and human capacity to conduct marine research that improves management and stewardship of marine ecosystems.

“Coral reefs, the most diverse ecosystems in the world, are under threat from climate change and extreme weather events,” explained NSF EPSCoR program officer John-David Swanson. “This award provides researchers the opportunity to explore how island systems, including coral reef and mangrove systems, recover after dramatic weather events such as the 2017 hurricanes that devastated the islands,” he said.

The Ridge to Reef project will address a number of questions such as how land use practices impact the health of coastal ecosystems, what additional factors impact the resilience of the Territory’s coral reefs, which factors are essential to the biodiversity of a coral reef ecosystem, and how biodiversity might impact the success of ecological restoration efforts. In addition, R2R provides funding to advance science literacy within the Virgin Islands and encourages STEM integration in the territory’s schools and at UVI, according to the release.

“We’re excited to secure this NSF grant on behalf of the Territory and the University of the Virgin Islands,” stated Dr. Kim Waddell, VI-EPSCoR director. “The next five years of funding will ensure that UVI and our local schools can broaden STEM participation for underrepresented students and encourage them to be a part of the next generation of scientists tasked with managing our islands’ remarkable natural resources –especially at a time of increasing uncertainty with our climate and other natural disruptions,” he said.

Under the leadership of Dr. Waddell, and with support from the National Science Foundation, UVI, and the Government of the Virgin Islands, VI-EPSCoR plans to continue to grow as a force for education and environmental stewardship across the territory.

“I would like to congratulate and thank the dedicated team at VI-EPSCoR for successfully securing this critical award that not only allows our talented researchers to continue their impactful and innovative study of our marine environment, but also ensures that many more young Virgin Islands students will be exposed to STEM programs and career opportunities in those fields,” said Dr. David Hall, UVI president. “It is important that UVI continues to play a leading role in marine research as well as preparing tomorrow’s workforce to take on the opportunities and challenges facing our communities and our environment.”

VI-EPSCoR has been a driver of marine and coastal research in the Territory thanks to the groundbreaking research accomplished by the researchers based in UVI’s Center for Marine and Environmental Sciences. Specific areas of research include studying the impacts of climate change on coral reefs (coral bleaching and disease), marine ecology (the dynamics and demographics of coral reefs), watersheds (mangroves, seagrass, and ghuts) and oceanography. Most recently, the Center for Marine and Environmental Studies has helped position the University to take a leading role in addressing the Stony Coral Tissue Loss Disease currently ravaging USVI reefs. VI-EPSCoR also fosters workforce development in the Territory and has created an active community of mutually supportive STEM teachers who continue to win national recognition for their contributions to the Virgin Islands educational system.