Stockton’s Marine Science and Environmental Field Station Celebrates 20 Years of Academic Service

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Galloway Township, NJ- From its humble beginning as a rented space in Brigantine, to a state-of-the-art research facility equipped with marine technology and a fleet of vessels, Stockton’s Marine Science and Environmental Field Station celebrates 20 years of academic service this month.

“The field station is one of less than a handful of facilities at primarily undergraduate institutions nationally that provides students with class, laboratory, and research opportunities only available at major universities. Stockton students have unique access to coastal environments just off the docks of the field station,” said Dr. Dennis Weiss, dean of the School of Natural Sciences and Mathematics.

“The Marine Science program has always had a field space,” said Steve Evert, field station manager, but in the last 20 years it has grown from “a staging area for equipment and a launch site to a full research and teaching laboratory.”

From the late ’70s to the early ’90s, the college rented space at the back of a marina in Brigantine to support field courses. In 1992, eight acres of land bordering Nacote Creek and a log cabin were purchased by the college from a retiring faculty member, Dr. Ted Van Bosse.

The first classes were held at the Port Republic site on Nacote Creek in 1993. Evert, who has run the field station for 17 years, started his career at Stockton at the same time that a National Science Foundation-supported renovation of the log cabin began.

What was once a living room and a kitchen became a working laboratory space with microscopes and specimens for students to explore the science of the shoreline.

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Greater academic demand initiated another renovation supported by the college in 2009 to increase space and also provided a separate building for the Coastal Research Center (CRC). The CRC, now 25 years old itself, has operated out of the field station since its 1993 opening, serving state and coastal municipalities with numerous coastal zone consulting services.

Over the past decade, faculty from the Marine Science, Biology and Environmental Science programs have steered research farther offshore. The field station currently houses a fleet of five research vessels, extending exploration and sampling throughout local estuaries. In addition to the typical dip nets, dredges, water-quality sampling devices and microscopes, students have the opportunity to work with side-scan sonar to create image maps of the bay floor and a remotely operated underwater vehicle (ROV) to observe wrecks and artificial reefs.

Beyond its instructional purposes, the field station has become a research facility for undergraduate students and faculty members to collaborate on significant coastal and environmental issues.

“[Faculty members] include undergraduates in funded research projects where they actively take part by collecting data and meeting collaborators. These opportunities can lead to jobs and graduate school further down the road,” said Dr. Mark Sullivan, associate professor of Marine Science.

Dr. Peter Straub, a 1980 Stockton Marine Science graduate who is now a professor of Biology, remembers the rented quarters in Brigantine, which he frequented as a student. He was the first faculty member to utilize the field station as a teaching site with a General Studies course, “Life in the Saltmarsh.” Now he teaches courses on scientific diving, marine technology and tide marsh ecology, which are dependent on the field station for hands-on application.

“We’re surrounded by 200,000 acres of public land. We couldn’t have a more beautiful place,” Straub said.

Straub is working on a project to evaluate artificial reefs as sustainable habitats for fish. He takes students to Little Egg reef off Beach Haven Inlet where they can use side-scan sonar to create image maps of the sea floor. “They can film with a remotely operated underwater vehicle (ROV), which runs with a joystick like a helicopter,” to produce video that tracks the distribution of black sea bass and tautog, he explained.

Dr. Tara Luke, an associate professor of Biology who is also working on the artificial reef project, said, “The ROV is a unique experience for students and it’s something that most undergraduate institutions don’t have.”

Luke teaches an underwater robotics course at the field station which allows students to build an ROV using PVC and motors. The course was developed at the request of students who participated as mentors to Atlantic City schoolchildren in the SeaPerch program.

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Evert noted that Dr. Sullivan is leading a NOAA grant-funded project that started last year and used side-scan sonar to recover nearly 500 abandoned crab pots from the Mullica River-Great Bay Estuary. “We hope to pull 750 to 1,000 lost pots from the bay this year,” said Evert.

“Stockton is attracting undergraduate students from across the nation because there are few places with such direct access to pristine estuaries,” Evert added.

“I’ve seen many great success stories,” he said. “Stockton is able to provide students with networking, research experiences and internships to prepare them for the future. The field station is a hub to offer students those opportunities.”