Alumni Voices: A Visit to the MSC

This fall, the Rising Tide caught up with alumnus Charles Terrell, who shares his memories of a past visit to the Marine Science Center for Doc Riser’s 85th birthday celebration.

“Having operated a bed & breakfast on Cape Cod for the past 19 seasons, my wife, Sandy, and I have led something of a ‘gypsy’ life. Every six months we would migrate between our antique summer home on Cape Cod and our winter home in Fairfax, Virginia. After having arrived on Cape Cod in April, 2005, Sandy and I revisited Northeastern University’s Marine Science Center. It was the occasion of the annual Riser Lecture Series, except that this time it was special because it was ‘Doc’ Riser’s 85th birthday celebration. The lecture series was named for my Master’s Professor, Dr. Nathan W. Riser, who guided me through three years at Northeastern.

“It had been about 35 years since the last time I had seen East Point. As we drove toward Nahant from Cape Cod, the recurring thought in the back of my mind was that Doc Riser wouldn’t remember me. After all, for a professor who had taught hundreds of students, even at the graduate level, why should he remember me among the multitude?

“As we drove through the gate, I recalled the first time I had been there. It was 1966. Since Northeastern had only recently acquired the property from the Federal Government, I was the first student ever to be there. The property formerly had been a ‘Nike Site,’ where in huge, deep bunkers during the Cold War were poised Nike Rockets, ready to be fired at any invader aircraft. Doc Riser had given me a note that I was to present to the guard, who would let me onto the property, and then I could start my intertidal research around East Point’s peninsula.

“Sandy and I walked to the ‘block house,’ which in 1966 had been the only building standing on the property. Now, the building was three times larger, and people were going inside. In the foyer, others milled about, but no sign of Doc Riser. Sandy whispered, ‘Look for the pipe! He was never without his smoking pipe!’ Finally, there at the end of the foyer was Doc. He saw me at about the continued on page 3

Three Seas Turns 25

This academic year marks two noteworthy and exciting milestones for the Three Seas Program. First and foremost, we are thrilled to celebrate the 25th anniversary of our program. Launched in 1983, the Three Seas Program has provided hundreds of students the unique opportunity to study marine biology in three beautiful and distinct environments: New England, the South Pacific, and Santa Catalina Island, California.

The program, it would seem, is improving with age; we evolve and expand every year. For example, Matt Bracken and Steve Vollmer have joined our fall faculty, offering new courses in Marine Ecology and Molecular Ecology & Evolution, respectively. Furthermore, daily shuttle services from Northeastern’s main campus enable all students of the University to benefit from the “hands on” course offerings at the MSC. In addition, we will begin offering a stand-alone fall semester option for students from other universities wishing to join us in Nahant.

Our second milestone is the fifth anniversary of the Professional MS in Marine Biology. This is an extremely popular program, filled to capacity again this year!

For more information about Three Seas, email s.genovese@neu.edu
Seaweed Soaks Up PCBs

Today, when one hears about algae, it’s almost always in regard to “harmful algae.” However, algae – particularly marine macroalgae or seaweeds – may have some valuable new and beneficial uses for mankind.

For example, the Cheney Lab has discovered a bloom of the common green macroalga Ulva lactuca flourishing in the upper portion of New Bedford Harbor, an area that has been designated an EPA Superfund Site since 1982, due to its high levels of polychlorinated biphenyls, or PCBs. PCBs are among the most hazardous pollutants in our coastal waters today; they pose serious health threats to marine mammals, birds and fish, as well as to humans.

Surprisingly, despite the PCB contamination, Cheney’s lab found over 18 tons of Ulva growing along the western shore of New Bedford Harbor. What’s more, they discovered the Ulva has taken up very high concentrations of PCBs: as much as 98 ppm PCBs in some places, which is 80 times greater than previously reported values for algae. Also, uptake experiments in the field have shown that Ulva takes up PCBs extremely rapidly, as much as 4 ppm in just 24 hours.

These discoveries could have some important environmental implications. First, that the Ulva bloom may be acting as a reservoir for PCBs in the New Bedford Harbor Superfund Site and, because it appears to be rarely eaten by grazers, the bloom likely reduces the amount of PCBs taken up by phytoplankton and transferred up the food chain. This would be the first time such a beneficial function has been described for seaweeds.

In addition, Cheney thinks that Ulva could provide a new, less expensive and more environmentally friendly approach for removing PCBs from other contaminated sites. It is thought that Ulva could be used as a “green mat,” that could easily be dispersed and recovered after absorbing PCBs from the top layer of contaminated sediments.
same time that I saw him. His expression was an instant grin from ear to ear. Not only had he remembered me, but he also showed absolute joy at my presence. As I approached, he reached out with both arms and, as if being drawn in by some powerful magnet, he gave me a great big hug. He said, ‘Charlie, you were the first one; you were the first student to be here at Nahant!’ Boy, was I surprised. He had given me the warmest of welcomes, and clearly remembered more about me than I had ever thought.

“I introduced Sandy, and Dr. Riser said he remembered her from my grad school days. We chatted for a few minutes about some of the former professors, until it was announced that the group was to proceed across the lawn to the ‘Bunker.’ There, where the Nike missiles had been stored, was now a small lecture hall, ready to launch not a missile, but the annual Riser Lecture.

“Following the lecture, Sandy and I said our good-byes to Dr. Riser and left the hall. It was great to visit a wonderful teacher, who was such a great part of my education.

“As Sandy and I arranged ourselves in our van to make our way back to Cape Cod, Sandy said, ‘Look there! It’s Dr. Riser running down the hill from the Bunker.’

“Sure enough, there he was, high-stepping down the slope on his way back to the block house. At 85, he nevertheless seemed sprightly and sure-of-step; however, this was the first time that ever I had seen Doc Riser without his pipe!”

- Charles Terrell, MS’68
Annual MSC Open House

This September, the MSC once again opened its doors for the Annual Open House.

As a stroke of good luck, it was an absolutely perfect fall day. Bright sunshine illuminated the way as more than 800 guests combed through tide pools, cleaned the beach, and visited a “crime scene” to determine which predators were at work on local organisms.

Throughout the day, guided tours took visitors back through time. On one such tour, local historian Jerry Butler spoke about the Murphy Bunker’s military use in WWII. Professor Malcolm Hill, in turn, taught participants about the geology of Nahant that reaches back 500 million years! And in the solar observatory, Dr. Peter Foukal gave curious explorers a close-up look at the sun.

As a new element this year, children received a Marine Science Center “Passport to Discovery.” They eagerly traveled from exhibit to exhibit to speak with researchers and earn passport stamps along the way.

It was a full day of learning and exploring for participants of all ages. The Marine Science Center is grateful to the Eastern Bank Charitable Foundation for their support of this wonderful day.

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