

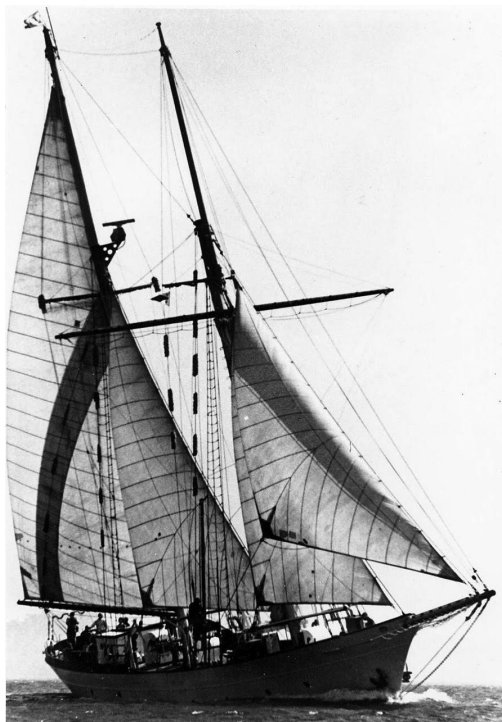
My Big SEA Adventure

By Maureen Nolan

In 1996 I knew nothing about SEA, but while vacationing and serendipitously pedaling in Woods Hole, my husband John and I noticed two stunning ships docked at what we later learned was Dyers Dock. The gate was open and we walked in to get a better look. An enthusiastic crew member explained that the two ships, the *R/V Westward*, a two-masted staysail schooner and the *SSV Corwith Cramer*, a brigantine, belonged to Sea Education Association.

They were "school ships" for a sea semester for college students. The students would hone shipboard skills, study ocean science while on land, and then embark on a sea adventure applying all the skills learned. It sounded wonderful! I was a middle-aged elementary school teacher a long way from a college student. But the idea of experiencing a sailing ship adventure was so enticing I jokingly asked the young crewmember if SEA might have a program for school teachers too. Amazingly, she said, "Yes." She gave me a brochure and that might have been the end of it, except the next day it poured rain, so my husband suggested we visit the SEA campus on Woods Hole Road and learn a little bit more.

We headed to the Madden Center, the main SEA building just past the five saltbox student cottages along the gravel road. We were greet-



"My dear *Westward*, my home on the sea."
Photo by Maureen Nolan.

ed warmly and offered a tour. Along the way our guide told us that SEA received a teacher grant from the National Science Foundation and other organizations. Because of this funding, there would be a five-week campus program ending with a ten-day voyage in New England waters. Not only would we collect and study ocean data, but we would literally become part of the ship's crew. I was almost 50, so I timidly asked if I was too old for this rigorous program. "No, not at all." I left with a lengthy application which I promptly completed when I returned to our home in Illinois. And then, oh my gosh, I WAS ACCEPTED!

The next summer my daughter Colleen and I headed for the Cape, me for five weeks on the Woods Hole Road campus and ten days at sea, and her, to give me a little support. As we hauled the canvas sea bag full of everything I needed including a journal, I planted it in front of the bunk bed that I would share with another woman. I felt like I was going to college and my daughter was the parent getting me settled and I was the kid with butterflies telling her I would be fine, even though I didn't feel fine. I had never been away from my husband or home for more than a couple of weeks, nor had I experienced dorm life in college. At Northeastern, I had been a commuter. I applied for this adventure because I loved the ocean and everything about it, and I wanted to share what I learned with my 4th and 5th grade students. However, I had no sailing experience, except an occasional kayak paddle in a salt marsh. And here I was about to become a member of the crew of a 125-foot Schooner!

Our class was divided up into five groups. I was assigned to Deneb, the fourth of the five cottages. My housemates were a variety of ages, men and women, all teachers, kindergarten through high school, from all over the country. We lived together, planned meals and clean-up, shared a bathroom and shower, worked together on projects and, most of all, got along. After a short time getting the hang of things, I loved it. We shopped for food together in teams, attended classes, and worked on academic projects. One of my new friends, Carolyn and I went swimming at the Knob every morning, rain or shine. I felt like a teenager!

I learned later that successful cottage life was a prerequisite for the future shipboard experience. If you couldn't get along and work cooperatively in the cottages, you would not be successful in the tiny shared shipboard space.

We spent each day learning about the ships, names of sails, mechanics of sailing, equipment we would use to collect data on the ship, navigation, oceanography, marine biology, geology, and weather. Our two captains of the ships, Peg Brandon, now President of SEA, and Sean Bercaw, taught many of the classes. Chief Scientists Paul Joyce and Gary Jaroshow and educators Pat Harcourt and Peter Barnes rounded out the team of teachers. We had homework each day, some of which was to find ways to teach the concepts that we were learning to our students, and then present these ideas to the rest of the class. The high school teachers learned their elementary peers seemed to have a knack for creatively explaining tough concepts, and we elementary teachers were happy to have the high school partners to lean on when we needed a refresher course on some math or science technicalities. We learned to read navigation charts and plot courses, designed model boats that would withstand storms in a wave tank, collected shore data to plot changes in beach slope, and recorded weather data outside our houses each day. We also learned sea ditties about "drunken sailors." We struggled to put on bulky lifesaving gear and explored knot tying, which I found particularly trying. All in all, I experienced an exhausting, but invigorating five weeks.

We spent our free weekends riding bikes on the Vineyard or Shining Sea bike path, visiting Spohr Gardens, and swimming at different beaches, sipping strong brew at Coffee O in Woods Hole, and always trying to anticipate the likelihood of the WHOOSH trolley picking us up. But above all, our favorite place was The Knob, with the beach, the hiking, and the wonderful swing that hung from a giant tree in the woods there. (I later heard that the tree fell down in a storm.)

July flew by and August 3rd came, and our on-board SEA adventure was about to begin. My life was in for a big change. First of all, what looked like a really big ship from outside suddenly became much smaller as I headed for my assigned berth, about the size of a coffin, mid-ship, just behind the galley. There were three other bunks in that very small space. I found no storage for my things, and had to lay out my gear under my sleeping bag, under my pillow, or at my feet. Other berths in the foc'sle (front of the ship) seemed to have more room. At first, I was a little annoyed about that, but later would feel so lucky when, during a gale, my foc'sle seasick friends were bounced out of their beds, and I slept in the steadiness of the middle of the ship. I really learned to love my little cradle bed. The pitches and rocking lulled me right to sleep like a baby.

Time certainly changed noticeably, since we now functioned on a 24-hour clock. The captain arranged us in watches, two six-hour ones and three four-hour ones. I was in A watch led by mate Eliza. As part of the crew we were on

duty at certain times throughout the whole 24 hours, just like the Navy. Duties for each watch consisted of: deck watch, galley watch, and lab watch. We also had classes and maneuvers where all hands were on deck. We enjoyed some free time as well, but you had to make time for sleep, which could be in the middle of the day.



"My little coffin bed." Courtesy Maureen Nolan.

Our ten-day voyage transected the continental shelf, south of New England, studying samples of the warmer water along the Gulf Stream, then north on to George's Bank. We studied the distinct chemical, physical, and biological characteristics of each area. We learned to use oceanographic gear to collect

samples of sediment and sea life using a tow, and we analyzed dissolved chemicals in water at different depths and in diverse locations. Our dear *Westward* traveled over 600 nautical miles. In the lab, we analyzed the samples as well as kept constant track of temperature, pressure, and salinity of the ocean water. One of the important transects was conducted from Boston Outer Harbor to Cape Cod Bay. This was a baseline survey of physical and geological characteristics of the region before the operation of the Boston sewage outfall pipe.

During the voyage I helped keep the ship's log, but also had my personal log (journal). Here are some entries:

Aug. 5th—First night on board. Slept very well in my little cozy bunk. Breakfast was French toast, fruit and bacon. The tables were gimbaled, which meant they stay level when ship is rocking and so the tables are not secure. Don't put elbows on table or you will get a lap full of food. Advised not to have coffee because of possible seasickness.

Had my first Watch today. 13:00-19:00. Deck watch. I STEERED the boat! We steer using the compass. My eyes were glued to the compass to get the exact course given to me, but I tended to oversteer. (Someone yelled back to me, "Who the heck is steering back there - I'm getting dizzy!") Then I had bow watch. Then helped to set and stow some heavy sails. Also got a little seasick, but mild so far... I helped with the neuston tow where we discovered mostly copepods and salps, not very diverse. Our

location was on the inner continental shelf.

Aug. 7th—The otter trawl, a net that drags a smooth sandy bottom, came up with lots of sea stars, some hake, flounder, crabs, shrimp, sand dollars, and skates. We counted everything, 16 species, about 1300 total. Depth about 50 meters. Although we threw everything back, it was sad. Many would not make it.

Aug. 8th—Tested sediment at Hydrographers Canyon, almost 1800 meters deep. Took a long time for shipek grab, a large jaw-like piece of equipment, to hit bottom and come up. The mud was freezing cold and the finest sediment I have ever felt. We rubbed it all over our bodies. It felt like we had gone to a crazy spa. Either that, or we looked like pirates, just like the wild crew of the *Cramer* did, when they came by and shot at us with their cannon earlier in the day. Oh, yes, we returned fire under Capt. Peg's order.

Aug. 9th—Started my first watch today at 3:00 AM. We found some swells. Steering was quite fun when you went over waves. The stern would rise high and you would actually be looking down at the bow. We raised the fisherman (a kind of sail) and we kept our heading as best we could. The wind was coming from the north, so we had to head east and west in a sort of a slalom routine. Later I went out on the bowsprit. I love it there. With the swells and the wind picking up, the bowsprit was thrilling. What a feeling you get being lifted high and then

you quickly fall like kind of a roller coaster. We are really in the ocean, no land in sight anywhere and hardly any other boats... it's just us and the sea. Yesterday a pod of dolphins sped by. Today we saw a couple of birds, a shearwater and a plover. Otherwise, it's just us in the middle of the deep sea!

On my second watch, which was 9:00 to 11:00 PM I had lab during a gale. The lab was rocking back and forth--then fore and aft. James, our watch scientist, and I were doing phosphate tests where you had to pour caustic liquid into small vials to use on a spectrometer -very tricky. I worked for

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4 hours on just that. I was supposed to be relieved, but my relief immediately got sea sick, so I stayed with James, who seemed to be a little sick too. It was a dastardly night. Waves coming right over the bow. The bow watch guy had to be standing midship and even then needed to be tethered. We thought the wind would never stop. After watch was over at 21:00 we had finally finished. James said I did awesome! I don't know how I kept my stomach together.

At the beginning of the voyage, Captain Peg and I were chatting on the deck, when she asked me if I had any special goals for the trip. I told her I was looking forward to

"doing science" with all the special equipment, and then I paused. "Well," I said, "I would LOVE to climb the masts and spot whales." And with a smile and her hand, holding her endless cup of coffee, pointed upward as she said, "So you shall." And I did...often!

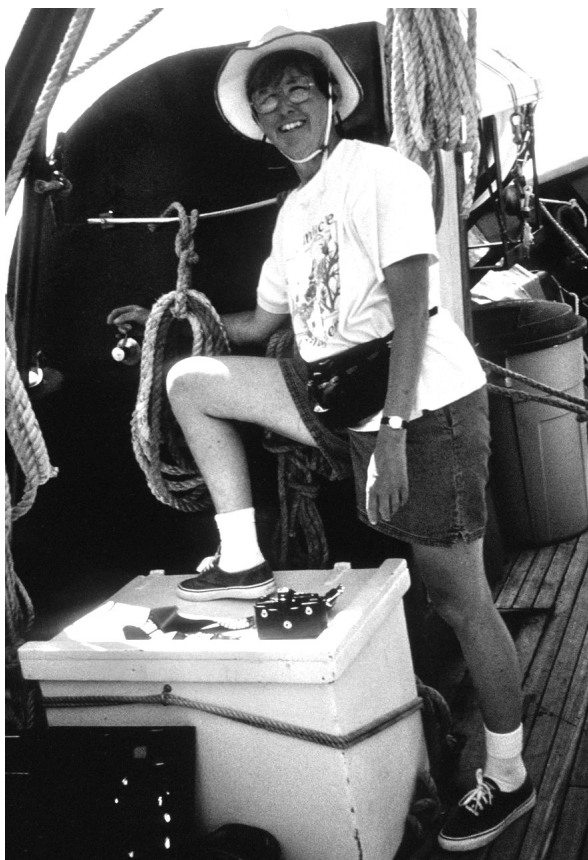
Aug. 10th—Permission to go aloft? Ok, put on my harness, climb up windward side, hitch whenever I stopped climbing. Either wiggle through hole in crow's nest or climb up and around outside to get to crows nest at about 100 feet up. I climbed aloft. Hey, I was getting pretty good at this. It was beau-

tiful up there. And there they were, a group of humpback whales! I had chills and tears in my eyes and just stared. Two of the females had calves. Finally, I shouted down to Mate Matt, "Whales, Ho!" "Where are they?" "9 o'clock." I had just started to climb down when I heard, "Prepare to tack." They were turning to go see the whales. I shouted, "What should I do?" He said, "Hold on!" I scrambled back on the spreaders, then held on to the mast for dear life. The sails luffed (flapped) all around me. The fisherman (a four-cornered sail) hit me in the face. I crouched down and held tighter than ever. It was scary and loud. When the tack was complete, I started to come down. The

wind had picked up and I realized that I was now on the wrong side of the ship, and was climbing down on the leeward side, which meant that the wind was blowing me away from the ship. Well, I held on real well and carried my tether ready to hitch it at any moment. I was fine. Peg chimed, "So how was it?" She's so casual, like I had just been on an amusement ride."

Aug. 11th—It was another big day. Presentations were over and we were all feeling good. Our cook Lee prepared another famous meal and we ate outside. Just after lunch Peg and Paul lowered the boom on us! They announced that for the rest of the day, we would have to run the ship by ourselves: navigate and tack and all that as well as conduct the experiments. We would run the tests in Boston Harbor to see if there was any impact from the sewage plant on Stellwagen Bank. Nobody thought they were prepared. I decided to do science. We were supposed to do a shipek grab. I sort of took over because I had done it before, but I still wasn't sure how to put it together, set it up to the winch without guidance. James, Vera, and Paul were there to look on. (I could tell it was hard for them to stand back while we struggled.) I was the one who was to give the orders and orchestrate the wire-up, wire-down, J frame, brake, and get that big heavy thing over the side without banging against the ship.) The biggest thing we pulled up was a piece of asphalt. Next, we did the CTD, (Conductivity-Temperature-Depth Recorder) -commonly called

the BMW because it's so expensive. (It collects water samples from different depths to test for salinity, temperature, and density.) We attached it to the J-frame and sent it down. The computer would read it. We were successful in all our tests. I felt so proud of myself and our team. Wow, I am blossoming!!!! What an interesting feeling for a 50-year-old.



"I gave the orders for the shipek grab to lower."
Courtesy Maureen Nolan.

Aug. 13th—I had an interesting experience on bow watch in the middle of the night, actually two. The first was seeing bioluminescence. Our bow was aglow and then a dolphin came by and it was also aglow like a silvery torpedo. It sped off after a bit like we were standing still. Standing bow watch is so important. Even though we had instruments, there could be problems that they didn't pick up. I was instructed to alert our first mate, Eliza, if anything looked strange or unexpected. I gazed over the bow during the starlit night and noticed a small strange light up ahead near the horizon. It was small and low, but bigger than the stars and seemed to twinkle, or blink. I called Eliza and showed her the strange light ahead. She poked me in the ribs and laughed. "Maureen, you silly, that's Nobska Light!" A beacon of light, of home and safety, such a warm feeling from that little light.

(I have felt that way about dear Nobska ever since!)

On our last day somewhere near Noman's Island, we all got to jump off the ship and go swimming, except for the mate in the rigging on shark watch. I think that refreshing swim and the mysterious icy cold beer for lunch were our rewards for a voyage well-done.

I had many other adventures and learned so much about ships, the ocean, my crew mates and myself. As we headed into Woods Hole, I thought I could see my husband John standing there in his grey shirt. But it was hard getting

off. The *Westward* had, after all, been our little world for ten days, and I was attached to it. Also, no one wanted to be the first off -- and make a fool of herself by walking like a drunken sailor. But the adventure wasn't really over, since I brought the SEA experience back to my 4th and 5th graders in Naperville, Illinois. We studied currents, navigation, fisheries, climate science, and continued to conduct chemical, physical, and biological tests on bodies of water, (rivers and streams) near our school.

Note: Sea Education Association is no longer able to offer the teacher-at-sea program. But SEA Semester, since 1971, continues teaching ocean studies as an accredited college undergraduate study abroad. High school environmental studies are offered in the summer and a "gap year" program has begun. *The Corwith Cramer* still can be seen at Dyers Dock, but the *Westward*, sadly, has been sold. However, to make Pacific Ocean studies easier, *Westward* has a beautiful replacement called the *SSV Robert C. Seamans*, which sails out of California.

About the Author: Maureen Nolan is a retired elementary school teacher who received the Presidential Award for Teaching Science and Mathematics in 1998. Originally from Somerville, MA, she and her husband lived in the Midwest for 30 years before moving to Falmouth, just a couple of miles from the SEA campus. She is still involved in education, planning and guiding student field trips at the Coonamessett River restoration and explaining history at the Museums on the Green. She is currently a member of the Board of Directors of the Woods Hole Historical Museum.