

CSS FACULTY PROFILE: *Ellie Armstrong's Love Affair With CSS*

In the three decades that Ellie Armstrong has devoted to teaching at the Children's School of Science, she has seen many strange and wonderful things. Perhaps the strangest and most wonderful happened during a particularly fecund summer. The students found a variety of creatures, from mammals to insects to fish, and brought them to the classroom where they built habitats for them. Just as the school was ready to open its door for an open house, all the animals began to multiply. Chipmunks gave birth, skate egg cases hatched, caterpillars became butterflies, a snake had babies, and a turtle laid eggs.

"One lady," Armstrong laughed, "came to the door and said 'Let me stay out of there! It's too fertile. I have enough children!'"

Armstrong began her CSS teaching career in 1970 when her oldest child, Heather, was in Seashore Life B (and in those days Seashore Life was divided into two courses, A and B). Armstrong has taught Seashore Life, as well as Woods, Ponds and Fields. Her favorite course, however, which she taught this past summer and "loves the most," is Marine Biology. Marine Biology is a class where "we do so much and we could do ten times more," Armstrong said. "The students are nine and ten, which is a wonderful age because they have the energy to walk to the beach, and they still have energy to collect."

Energy to collect is an important quality for Armstrong's students to have. In Marine Biology, Armstrong makes it a goal to go out each day collecting specimens.

"We collect protozoa, we do a plankton tow, which is when you take a net and you drag it along and look under the microscope at the almost invisible plankton."

In Marine Biology, the students also learn about food chains, food webs (what creatures eat), sponges, echinoderms (starfish, sea urchins, sea cucumbers—radial symmetry and tube feet) and arthropods which are the crabs, and the mollusks which are the shells. "We take each group and learn some of the animals in each." While learning about the animals, Armstrong's students also learn their scientific names. When collecting mollusks, for example, the students will obtain a fair number and label them with scientific names.

"We did a little play that we performed for Seashore Life about a group of scientists from Spain and Turkey and Britain who tried to use the ordinary names for animals and got confused. Once they used the scientific names, they could understand each other."

"The one day that we don't go out, we do fish dissection—we dissect squid, which is a mollusc, and most often scup. The kids love it on this one day that we don't go out. Sometimes if we're lucky we might dissect a dogfish, a flounder, or a sea robin, too."

An important aspect of Armstrong's Marine Biology course is the study of jellyfish. Students learn to tell poisonous specimens from non-poisonous, and to learn which ones are bio-luminescent (glow in the dark).

"We get permission from Beth Armstrong [photography instructor] to take them into the darkroom, where we agitate them in the bucket and watch them glow," Armstrong said. Armstrong added that her students also draw jellyfish with white chalk on dark paper. She sprays the pictures with a fixing solution and the "kids have a nice drawing to keep."

Although Marine Biology is Armstrong's passion, there are courses that she remembers vividly and with fondness.

A course that is particularly memorable for Armstrong was a class in the 1970's titled "Practical Ecology." Influenced by the revolutionary, open spirit of the times, the course was designed for older children, to prepare for life in a changing world.

"In the course, I taught the kids about birth control, population studies, solar heating, and we even made our own organic gardens. It was a cool course. I don't think it's been taught since."

Another favorite course of Armstrong's was Limnology, the study of freshwater environments. Once Armstrong recalls doing a project on Ice House (or Miles) Pond, which involved mapping the thermo climes in the pond. The class took Nansen bottles, often used in oceanography, and sent them down to different places in the pond. They then took samples of water at different depths, in order to measure temperature,