

*Remarks for NWQ Cluster “Meet and Greet,” 9/2/2019*

We have all been asked to say a word or two about why we have chosen to teach in this year’s Natural World Cluster courses in the Montserrat program, and to talk about some experience we have had in the natural world. The idea (we all hope) is that by listening to us today, you’ll start to get to know all of the NWC faculty, not just the instructor of your seminar. We’ll be doing a lot together over the course of the year through our cluster activities, so this session is mostly a way to begin those common experiences.

So, “here goes:” I am John Little from the Mathematics and Computer Science department. I’m going to be teaching the seminars called *Environmental Mathematics: Modeling the Environment* this fall, and *Analyzing Environmental Data* next spring. The best way to explain why I have been a pretty regular participant in Montserrat almost since the start is to say that, while I *am* a mathematician, I am not *only* a mathematician. I’m also very interested in how mathematics connects with other areas – including connections with the physical and biological sciences, where mathematics serves as a language and a tool for describing relationships, modeling the “real world,” and understanding possible behavior of natural systems. (I’m also fascinated by more subtle connections between mathematics and music, mathematics and art, and even mathematics and literature, where we can see the creativity of human minds working in similar ways, but that is another story.)

Everyone here will certainly understand it when I say that nothing in the natural world stands still. I got to know mid-coast Maine very well after my mom moved there from Pennsylvania in 2000, for “her last adventure,” as she said. One of the places we both loved to visit near her new home was the state park at Popham Beach. After she passed away in 2014, I had not been back there for several years, but I had the chance to return last summer. You get to the park by turning off U.S. 1 at Bath and driving for about 15 miles down one of the narrow rocky “fingers” of land that are such a distinctive part of the Maine sea coast. Naturally, memories of the beach came flooding back on the way. When I visited it with my mom, there was an unbroken sandy expanse from the state park, stretching straight past private property, and finally around a corner. You could walk for about two miles right up to the ruins of an old Civil War-era coastal defense fort (“Fort Popham”). But between the last time I had been there and this most recent visit, the power of the sea and several strong storms had reshaped the beach and made it barely recognizable. The sand from a whole central section had been scoured away. This threatened a group of beach houses perched on the slight hill overlooking the beach. Those had been well back from the water before. The owners had brought in huge granite blocks to build up a protective sea wall and save those houses from further encroachment, but it wasn’t clear they would succeed for long. At high tide, the water came right to the foot of the hill and the beach was effectively split into two sections (unless you wanted to trespass on that newly-installed granite). I won’t take a stand either way whether we should see connections with our summer reading and climate change in this particular case. I’ll just leave you with the thought that things we treasure in the natural world are often more fragile than we expect or realize.