

Scientist Spotlight



Dr. Mike Polito

What is your educational background?

I did my undergraduate studies at the University of North Carolina Wilmington and then worked for NOAA for several years before going back to the University of North Carolina Wilmington for a Ph.D. in Marine Biology. Before coming to Louisiana State University, I was a post-doctoral scholar at the Woods Hole Oceanographic Institution.

What inspired you to become a scientist?

When I was growing up I spent a lot of time outdoors and in the water. I also was lucky enough to have some really excellent science teachers that got me interested in biology from a young age. The idea of a profession where I could spend time outdoors and study the natural world was pretty appealing.

Can you describe what you enjoy the most about conducting scientific research?

I love that my job is to learn about the world around me. From start to finish conducting scientific research has a lot of ups and downs. First is the challenge and excitement of coming up with a new idea or question to examine. Then you have to figure out the best way to sample or conduct your experiment so that it will provide new knowledge about the focal question. Field work itself is often the most fun. It's amazing to get out into nature and observe how animals interact with each other. That said, it is often one of the hardest parts of the job. Many times I have gone into the field with a really great plan A only to have situations come up that forced me to switch to plan B, C or even D.

What is your role as a scientist for CWC?

I am an ecologist, which means that I study how organisms interact with each other and their environment. Together with CWC researchers and students from LSU, LUMCON, Rutgers and the University of North Carolina I am studying the food-web structure of marsh ecosystems that have been affected by the oil spill. Our goals are to understand if and how marsh food webs differ between oil impacted and non-impacted sites. To accomplish this goal we are using a technique called stable isotope analysis which works on the principle that animals "are what they eat" and allows us to estimate the diets of organisms like snails, crabs, shrimps, fish, rats and birds.

Can you summarize your oil spill research and describe any surprising findings you have come across?

Our food-web analyses are still in their early stages and we are excited to learn about the trophic connections between animals in the marsh. When starting this project I was surprised how little is known about marsh food webs in coastal Louisiana. Our work will change that and allow us to better understand how the health and resiliency of the marsh ecosystem are affected by oil spills and other human impacts.



The Coastal Waters Consortium's mission is to assess the chemical evolution, biological degradation, and environmental stresses of petroleum and dispersant within Gulf of Mexico coastal and shelf ecosystems.