

The Coastal Waters Consortium Presents:

# Scientist Spotlight

## Dr. Jill Olin



### What is your role as a scientist for CWC?

I'm part of a team of researchers investigating the response of saltmarsh food webs to the 2010 DWH oil spill. My work focuses specifically on understanding the response of the terrestrial component of the saltmarsh food web to oiling, with emphasis on the Seaside Sparrow. I use ecological tracers including stable isotopes and fatty acids to determine diet and resource use of the species in this community.

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

Several taxa including fiddler crabs, snails and insects have experienced negative population responses to the oil spill and these responses are expected to affect the diet of the seaside sparrow. However, few dietary changes have been reported for saltmarsh-associated species using oiled areas based on our food web analysis but we did observe temporal (seasonal) differences in diet of the sparrows. Although surprising from the oil perspective, these findings highlight the need to develop a clearer understanding of saltmarsh food webs and how species interact within them.

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.

### What is your educational background?

I earned my B.S. at the University of New Hampshire and my M.S. from Hofstra University, both in the Marine Sciences and my Ph.D. from the University of Windsor in Environmental Sciences.

### What inspired you to become a scientist?

I have always loved the aquatic environment. As a kid, growing up in the Finger Lakes region of NY, I was constantly outdoors, fishing and exploring streams and ponds for various critters. I was blessed to have a family that supported my passion and always included trips to the ocean or an aquarium on our vacations. I started university with a major in marine and freshwater biology and spent my first summer exploring the rocky intertidal and learning about predator-prey interactions at Shoals Marine Lab. I have been hooked ever since!

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

I study critters in their natural environment, from the Gulf of Mexico to the Canadian Arctic, and love it! My favorite days begin on the water at dawn prepping gear and getting ready for the field work at hand. Being in nature drives my passion and serves as inspiration for exciting questions and ideas that I can bring back to the office to research and develop. I also benefit from collaborating with amazing researchers that share my passion and challenge me to think outside my normal routine.

